

SUPERIOR COURT OF NEW JERSEY  
LAW DIVISION - MIDDLESEX COUNTY  
DOCKET NO. L-1141-99

- - - - - :  
MYRON A. MEHLMAN as Adminis-:  
tratrix Ad Prosequendum and : Civil Action  
Administrator of the Estate :  
of Constance L. Mehlman, :  
deceased, : TRANSCRIPT OF  
: PROCEEDINGS  
Plaintiff, :  
:  
PHILIP MORRIS, INC., : VOLUME 15  
(PHILIP MORRIS, U.S.A.), : (PAGES 2851-3073)  
R.J. REYNOLDS TOBACCO CO., :  
:  
Defendants. :  
- - - - - :  
Thursday, April 26, 2001  
9:15 a.m.  
1 JFK Square  
New Brunswick, New Jersey

B E F O R E:

HON.MARINA J. CORODEMUS, J.S.C. and a Jury

Reported by: Patricia J. Russoniello,  
Marianne A. Cammarota,  
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Certified Realtime Reporters

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15  
 16

17 I N D E X

18 WITNESS DIRECT CROSS REDIRECT REDIRECT  
 19 DAVID EUGENE TOWNSEND, Ph.D.  
 20 By Mr. Migliori 2854 2956  
 By Mr. Biersteker 2948  
 21 JERRY FRANK WHIDBY, Ph.D.  
 22 By Mr. Rosenberg 2985 3064  
 By Mr. Patrick 3033

23  
 24  
 25

2853  
 1 (Court in session at 9:15 a.m.)  
 2 THE COURT: Good morning. Thank you  
 3 very much. Please be seated.  
 4 COUNSEL: Good morning, Your Honor.  
 5 THE COURT: I have the jury right  
 6 behind me.  
 7 (At this time the jury enters the  
 8 Courtroom at 9:15 a.m.)  
 9 THE COURT: Al, could you just remove  
 10 that box so Mrs. Manning can sit down? The box in  
 11 the jury -- the box of notebooks.  
 12 THE COURT OFFICER: Yes.  
 13 THE COURT: Okay. Thank you very  
 14 much. All be seated. All right. Everyone --  
 15 anyone need any pens? See? I'm ready. Okay.  
 16 Thank you, Mr. Scrivani. I  
 17 appreciate your assistance to the Court. I  
 18 appreciate it.  
 19 Al, that's okay. We have them. It's  
 20 all right. We've got them. Okay.  
 21 Thank you very much.  
 22 All right. Good morning. Welcome  
 23 back.  
 24 THE JURY: Good morning.  
 25 THE COURT: Everyone ready?

-D. Townsend, Ph.D. - cross - Mr. Migliori- 2854  
1 COUNSEL: Yes, Your Honor.  
2 THE COURT: Cross-examination,  
3 please.  
4 MR. MIGLIORI: Thank you, Your Honor.  
5 Good morning, ladies and gentlemen.  
6 THE JURY: Good morning.  
7 D A V I D E U G E N E T O W N S E N D, Ph.D.,  
8 previously sworn, continues to testify as follows:  
9 CROSS-EXAMINATION BY MR. MIGLIORI:  
10 Q. Good morning, Dr. Townsend. How are  
11 you?  
12 A. Good morning. I'm fine. Thank you.  
13 Q. This morning I'm going to try to be  
14 brief and I'm going to try to move this along as  
15 quickly as possible. There's one way that you could  
16 help me. I'm going to ask some questions that I'll  
17 start by asking whether it's true or false or I'll  
18 ask you a yes or no question and for the interests  
19 of time I'd ask that you respond yes or no or true  
20 or false. Is that okay?  
21 A. I'll do my best.  
22 Q. Okay, Doctor.  
23 Now, you are a chemist, aren't you,  
24 Doctor?  
25 A. Yes.  
-D. Townsend, Ph.D. - cross - Mr. Migliori- 2855  
1 Q. And you are not a medical doctor?  
2 A. That's correct.  
3 Q. You have never examined or treated a  
4 patient or a person with specific lung disease?  
5 A. No. That's absolutely correct.  
6 Q. Okay. And you are not an  
7 epidemiologist?  
8 A. Of course.  
9 Q. You're not a pharmacologist?  
10 A. Correct.  
11 Q. You've never studied addiction?  
12 A. That's correct.  
13 Q. And you are not an expert in  
14 behavioral sciences?  
15 A. That's correct.  
16 Q. You graduated from high school in  
17 1965?  
18 A. I believe that's right.  
19 Q. All right. And --  
20 A. It's been awhile.  
21 Q. And college was 1969?  
22 A. That's right.  
23 Q. And in 1972 that's when you obtained  
24 your Master's of Science degree?  
25 A. That's right.  
-D. Townsend, Ph.D. - cross - Mr. Migliori- 2856  
1 Q. And in 1974 you received your Ph.D.?  
2 A. That's right.  
3 Q. And your Ph.D. was in chemistry,  
4 organic chemistry?  
5 A. Physical organic chemistry.  
6 Q. Okay. The first company that you  
7 ever worked for in the area of cigarette design was  
8 R.J. Reynolds Tobacco Company. Is that correct?  
9 A. That's right.  
10 Q. And you started at R.J. Reynolds

11 Tobacco Company in 1977?  
12 A. That's right.  
13 Q. As of 1977, Doctor, isn't it true  
14 that you didn't know anything about the relationship  
15 of tar and nicotine in cigarettes when you started  
16 with R.J. Reynolds?  
17 A. In a technical sense it's very clear  
18 that I didn't know anything significant about  
19 cigarettes, about cigarette design, about tar, about  
20 relationship between tar and the risk of diseases.  
21 I think certainly about the time --  
22 well, actually slightly before the time I started  
23 with Reynolds I began to smoke some and I was very  
24 aware that cigarette smoking was risky.  
25 Q. Okay. Let me ask you again the  
-D. Townsend, Ph.D. - cross - Mr. Migliori- 2857  
1 question. Is it true, yes or no, that as of 1977  
2 and, in fact, you've testified to this in other  
3 cases that you have -- you did not know the  
4 relationship between tar and nicotine in terms of  
5 cigarette design until you got to R.J. Reynolds?  
6 A. Well, I think that was my answer.  
7 The answer is yes.  
8 Q. Okay. In fact, everything you've  
9 learned about cigarette design you learned at R.J.  
10 Reynolds?  
11 A. I learned while I've been at  
12 Reynolds. Certainly some of the cigarette design  
13 information has come from public literature, from  
14 scientific literature, from around the world, not  
15 just internal to Reynolds but certainly everything  
16 I've learned has been while I've been at Reynolds.  
17 Q. Sure. And that was again beginning  
18 of 1977?  
19 A. That's right.  
20 Q. And you've testified in the past that  
21 as of 1977 you didn't know what the FTC method was,  
22 correct?  
23 A. When I joined the company I did not --  
24 Q. Let me ask the question again.  
25 You've testified in the past, have  
-D. Townsend, Ph.D. - cross - Mr. Migliori- 2858  
1 you not, that as of 1977 when you joined R.J.  
2 Reynolds you did not know what the FTC method was,  
3 correct?  
4 A. The details of the test method,  
5 that's correct.  
6 Q. Okay.  
7 A. I was aware that there was a test  
8 method.  
9 Q. Thank you.  
10 As of 1977 when you joined R.J.  
11 Reynolds you had not researched what if any  
12 carcinogens were in any given cigarette, correct?  
13 A. That's correct.  
14 Q. As of 1977 when you joined R.J.  
15 Reynolds you had not investigated the role of  
16 nicotine in cigarette design. Is that correct?  
17 A. Of course.  
18 Q. As of 1977 you had not yet looked  
19 into what constitutes cigarette tar?  
20 A. Chemically?  
21 Q. Chemically, sure.

22 A. Yes.  
23 Q. You had not yet investigated as of  
24 1977 what if any additives were put into any  
25 cigarettes manufactured by R.J. Reynolds, correct?  
-D. Townsend, Ph.D. - cross - Mr. Migliori- 2859  
1 A. That's correct.  
2 Q. As of 1977 you had not ever  
3 investigated what tobacco-specific nitrosamines  
4 were, correct?  
5 A. I think that's correct, yes.  
6 Q. And yesterday you gave a fairly long  
7 description of all the different types of tar  
8 reduction processes that R.J. Reynolds has  
9 implemented and which you have been involved with  
10 since 1977. Do you remember that testimony?  
11 A. Of course.  
12 Q. And as of 1977 when you joined R.J.  
13 Reynolds you had no background at all in selective  
14 reduction, correct?  
15 A. That's correct.  
16 Q. You had no background at all with  
17 respect to selective filtration. Is that correct?  
18 A. That's not correct.  
19 Q. Okay. We'll get back to that one.  
20 Reconstituted tobacco. You testified  
21 in the Wiley case that you had no background as of  
22 1977 in reconstituted tobacco, correct?  
23 A. That's correct.  
24 Q. And that would apply for expanded  
25 tobacco, air dilution and all the other engineering  
-D. Townsend, Ph.D. - cross - Mr. Migliori- 2860  
1 concepts that you discussed yesterday, correct?  
2 A. Yes.  
3 Q. And then you talked at length about  
4 two other products that R.J. Reynolds developed in  
5 the '80s and '90s, Premier and Eclipse. Do you  
6 recall that?  
7 A. Yes. I was very much so.  
8 Q. And again these are all techniques  
9 that you became familiar with after you joined R.J.  
10 Reynolds in 1977, correct?  
11 A. That's right.  
12 Q. Doctor, you've testified in several  
13 tobacco cases. Is that correct?  
14 A. I've testified before, yes.  
15 Q. Isn't it true that you've testified  
16 in greater -- greater than 16 times in tobacco  
17 litigation?  
18 A. I believe this is my 17th trial  
19 actually.  
20 Q. And the testimony that you give --  
21 and you've testified to this in the Wiley case. The  
22 testimony that you give in each of these cases is  
23 for the most part very similar, correct?  
24 A. Yes, because it's the story of our  
25 cigarette design efforts and that doesn't change.  
-D. Townsend, Ph.D. - cross - Mr. Migliori- 2861  
1 Q. And in the Engle and Broin cases you  
2 testified that these demonstratives that you have  
3 shown the jury are similar each time that you've  
4 testified?  
5 A. They are. Again, the story is the  
6 same because that's what we've done at Reynolds to

7 address smoking and health issues through cigarette  
8 design.

9 Q. And it's the same story you tell no  
10 matter what the facts are of the case, correct?

11 A. Beg your pardon?

12 Q. It's the same story you tell  
13 irrespective of what kind of case, tobacco case it  
14 is, correct?

15 A. I'm asked to be an expert witness in  
16 the area of cigarette design and what R.J. Reynolds  
17 has done to address smoking and health issues  
18 through cigarette design. That is the -- that is  
19 the information that I provide to this -- this jury,  
20 this Court and others. It doesn't change.

21 Q. Now, there are others at R.J.  
22 Reynolds before you got there that were involved in  
23 issues of cigarette design. Is that correct?

24 A. There have been many people at  
25 Reynolds who have been involved in basic research of  
-D. Townsend, Ph.D. - cross - Mr. Migliori- 2862  
1 cigarette design parameters, how to change  
2 cigarettes. Many people who have -- who've  
3 essentially dedicated their career to trying to  
4 reduce the risk of cigarette through product  
5 development and cigarette design. Many, many  
6 people.

7 Q. The answer is that's correct?

8 A. Yes.

9 Q. And that includes --  
10 THE COURT: Am I still having trouble  
11 hearing people? I guess so. Okay. Go ahead.

12 Q. That includes Dr. Colby. You recall  
13 Dr. Colby?

14 A. Dr. Colby was a Reynolds employee but  
15 he was not a cigarette designer and not a product  
16 developer.

17 Q. And Dr. Rodgman?

18 A. Dr. Rodgman was not a product  
19 developer nor a cigarette designer but he was an  
20 employee of Reynolds.

21 Q. He was also your superior, wasn't he?

22 A. At one point, yes. Excellent  
23 scientist.

24 Q. And Dr. Senkus was also?

25 A. Dr. Senkus was in the research and  
-D. Townsend, Ph.D. - cross - Mr. Migliori- 2863  
1 development department, an employee of Reynolds but  
2 was not a cigarette designer nor product developer.

3 Q. And Dr. Teague was also at RJR before  
4 you got there in 1977, correct?

5 A. Yes, he was.

6 Q. And when you started in 1977 you  
7 didn't start as the head person of research and  
8 development, did you?

9 A. Of course not.

10 Q. In fact, that title became yours  
11 when?

12 A. I was promoted to vice-president of  
13 research and development in -- it was the end of  
14 October of last year.

15 Q. Okay. So it hasn't been quite a year  
16 yet that you've been --

17 A. It's been about six months.

18 THE COURT: I'm sorry. What was the  
19 question?  
20 MR. MIGLIORI: It hasn't been quite a  
21 year.  
22 THE WITNESS: It's been approximately  
23 six months.  
24 Q. And the only product that you've ever  
25 participated in the development of is a cigarette,  
-D. Townsend, Ph.D. - cross - Mr. Migliori- 2864  
1 correct?  
2 The only product that you yourself  
3 have participated in the development of is a  
4 cigarette, correct?  
5 A. In my stay at Reynolds?  
6 Q. Anywhere.  
7 A. No. That's not correct.  
8 Q. At R.J. Reynolds is that the only  
9 product you've helped to develop?  
10 A. Since I've been at R.J. Reynolds my  
11 job has been the basic study of cigarette design,  
12 implementing those designs to reduce risks of  
13 smoking, product development and cigarette testing.  
14 Q. Isn't it true that you testified in  
15 the Wiley case that your company's entire life is  
16 based on being able to sell cigarettes?  
17 A. Certainly the well-being of the  
18 company is based on selling cigarettes.  
19 Q. And that's --  
20 A. That is our business.  
21 Q. And in that same case you testified  
22 that if people stopped smoking you'd be out of a  
23 job, correct?  
24 A. I think that's right, sure.  
25 Q. And your company wants people to  
-D. Townsend, Ph.D. - cross - Mr. Migliori- 2865  
1 continue to smoke. Is that correct?  
2 A. No, that is not correct. Our company  
3 provides products to people who choose to smoke. We  
4 don't want people to smoke necessarily. That is a  
5 personal choice that people make. If a person  
6 chooses to smoke, yes, we want them to smoke  
7 Reynolds' products, not Philip Morris, Lorillard or  
8 the other companies.  
9 Q. And in the context of a cigarette  
10 design, consumer acceptance is of paramount concern,  
11 correct?  
12 A. Within the process of cigarette  
13 design consumer acceptance is the paramount issue.  
14 Q. And the way that's tested is by the  
15 number of cigarettes that are sold, correct?  
16 A. Well, there are various tests of  
17 consumer acceptance. Certainly the ultimate test is  
18 whether a cigarette makes it in the marketplace,  
19 stays and becomes profitable. There are other ways  
20 to measure or estimate consumer acceptability  
21 including large-scale consumer tests where smokers  
22 will smoke long term a particular product to see if  
23 they like it, see what the problems are.  
24 There are different ways to gauge  
25 consumer acceptability.  
-D. Townsend, Ph.D. - cross - Mr. Migliori- 2866  
1 Q. In order to serve as an expert in  
2 this case and in order to give the opinions that you

3 did yesterday with respect to pre-1977 event, isn't  
4 it true, Doctor, that you've had to rely heavily on  
5 historical documents?

6 A. That's one, historical documents, and  
7 also personal discussions with scientists who  
8 preceded 1977.

9 Q. I don't want to know about any  
10 outside communications you had with people. I'm  
11 specifically asking you about historical documents.

12 You rely heavily on historical  
13 documents, do you?

14 A. Well, again I rely heavily on  
15 historical documents but I also rely on discussions  
16 with scientists that preceded me and I'm not talking  
17 about outside people. I'm talking about Reynolds'  
18 people.

19 Q. Doctor, you have testified in the  
20 Broin and Engle case about the media training you've  
21 had with respect to your testimony in various  
22 litigation?

23 MR. BIERSTEKER: Objection, Your  
24 Honor. This is improper impeachment.

25 THE COURT: Can I see counsels at  
-D. Townsend, Ph.D. - cross - Mr. Migliori- 2867  
1 side bar.

2 (The following takes place at side  
3 bar:)

4 MR. BIERSTEKER: My objection is that  
5 a lot of these questions are being preceded by you  
6 testified at. Ask the question. If he says  
7 something differently than he said before then you  
8 can impeach him with the prior testimony. The  
9 question should be put that way.

10 THE COURT: He's right. The  
11 predicate has to be the supposition first. Isn't it  
12 true, Doctor, that because the inference is when you  
13 use the trial testimony before that is already  
14 inconsistent with what he's said and that is not the  
15 statement at this point.

16 MR. MIGLIORI: I'll rephrase the  
17 question. This witness is historically very  
18 difficult to keep to yes and no and I will -- I will --

19 THE COURT: I'm still here.

20 MR. BIERSTEKER: All right. Thank  
21 you, Judge.

22 MR. MIGLIORI: I will rephrase the  
23 question but the only reason I'm doing it is  
24 strictly to try to keep him moving but I will  
25 rephrase the question. I understand. I'll

-D. Townsend, Ph.D. - cross - Mr. Migliori- 2868  
1 rephrase.

2 THE COURT: Okay.

3 (The following takes place in open  
4 Court:)

5 THE COURT: Go ahead, sir.

6 MR. MIGLIORI: Thank you, Your Honor.  
7 BY MR. MIGLIORI:

8 Q. Doctor, you have received media  
9 training concerning cigarette fire safety issues and  
10 presenting those issues in litigation, correct?

11 A. As I testified before I've received a  
12 small amount of media training for two purposes.  
13 The first times is for dealing with the press on



14 fire safety issues. That was more than ten years  
15 ago. And more recently on dealing with the press on  
16 the launch of Eclipse.

17 I've never received media training or  
18 wanted media training to deal with litigation or any  
19 legal matters.

20 Q. And after that media training which  
21 you've characterized as a role-playing exercise you  
22 were asked mock questions and you gave your answers  
23 and reviewed your answers on videotape. Is that  
24 correct?

25 A. That's a part of the training.

-D. Townsend, Ph.D. - cross - Mr. Migliori- 2869

1 Q. And you testified in a case called  
2 Connor in Florida in April of 1997. Do you recall  
3 that?

4 A. I don't remember the exact date but I  
5 have testified in Connor.

6 Q. Okay. And after you testified in  
7 that case did you not receive a phone call from the  
8 CEO then of your company, Steve Gladstone, calling  
9 you to thank you for giving that testimony?

10 A. I believe his name was Goldstone.

11 Q. I'm sorry. I said Gladstone.

12 A. Yes.

13 Q. It's a personal friend of mine. I  
14 apologize.

15 And in July of that year that's when  
16 you were promoted to the vice-president of product --  
17 the product division, correct?

18 A. It was in that time frame.

19 Q. And you said that your salary is not  
20 affected by whether or not you testify in court. Is  
21 that correct?

22 A. What I said was I don't receive a  
23 bonus or any additional money for appearing in  
24 court.

25 Q. Isn't it true, Doctor, that no single

-D. Townsend, Ph.D. - cross - Mr. Migliori- 2870

1 RJR employee has testified in tobacco litigation as  
2 much as you have?

3 A. I think that's a fair statement.

4 Q. Isn't it true, Doctor, that no single  
5 employee of Philip Morris or any other domestic  
6 tobacco company has testified in litigation as much  
7 as you have?

8 A. I don't know for sure.

9 Q. Isn't it true, Doctor, that you have  
10 testified in the Engle case that you are, in fact,  
11 the person who's testified more than any of -- any  
12 employee of any other competitive or competitor  
13 tobacco company?

14 A. I think at the time I believe that.  
15 I don't know whether it's still true.

16 Q. Now, Doctor, you spent a good part of  
17 yesterday talking about technologies with which you  
18 are familiar since you got to Reynolds in 1977. Is  
19 that correct?

20 A. Yes.

21 Q. Now, I'd like to spend this morning  
22 talking about what was happening before 1977 as best  
23 we can and first I want to start with the basics of  
24 your products; that is, RJR products, okay.

25                               Between 1951 and 1975 is it true that  
          -D. Townsend, Ph.D. - cross - Mr. Migliori- 2871  
1   R.J. Reynolds sold Camel cigarettes?  
2               A.       Camel nonfilters were sold that  
3   early. Camel filtered cigarettes, Lights and  
4   Ultralights were introduced at later times, much  
5   later times.  
6               Q.       And that was my next question,  
7   Doctor. When did R.J. Reynolds put filters on their  
8   cigarettes?  
9               A.       The first filtered cigarette was 1954  
10  with the introduction of Winston.  
11              Q.       All right. What about Camels?  
12              A.       I believe the Camel filter was  
13  introduced in 1964 or thereabouts.  
14              Q.       From 1951 to 1975 isn't it true that  
15  the Camel cigarettes that R.J. Reynolds sold  
16  contained tar?  
17              A.       All cigarettes deliver tar. They  
18  don't contain tar.  
19              Q.       Fair enough. I --  
20              A.       Technically accurate.  
21              Q.       And isn't it true that between 1951  
22  and 1975 all Camel products that R.J. Reynolds sold  
23  delivered tar to the smoker?  
24              A.       All conventional cigarettes including  
25  Camel deliver tar to the smoker.  
          -D. Townsend, Ph.D. - cross - Mr. Migliori- 2872  
1              Q.       And with or without filters smokers  
2   of Camels inhaled tars between 1951 and 1975,  
3   correct?  
4              A.       I think it's a reasonable --  
5   reasonable to say that smokers inhale tar from  
6   conventional cigarettes.  
7              Q.       Including filtered and nonfiltered  
8   cigarettes?  
9              A.       Including filtered and nonfiltered.  
10  It's just that some are a lot less than others.  
11              Q.       And isn't it true that prior to  
12  January 1st of 1966 R.J. Reynolds did not put  
13  warnings on any of its packages on tobacco products.  
14  Is that correct?  
15              A.       That's correct. I believe it was  
16  1966 that Congress decided that was an appropriate  
17  thing to do.  
18              Q.       And is it also true from January 1st,  
19  1966 to 1969 warnings on packages of Camel  
20  cigarettes did not state that smoking this product  
21  causes lung cancer?  
22              A.       The warnings on the pack have always  
23  been what Congress deemed appropriate. The warning  
24  in that time period did not state that cigarette  
25  smoking causes cancer. That's not what Congress  
          -D. Townsend, Ph.D. - cross - Mr. Migliori- 2873  
1   wanted.  
2              Q.       And from 1951 until 1969 your  
3   company, R.J. Reynolds Tobacco Company, did not list  
4   the ingredients of its products on their packages,  
5   correct?  
6              A.       That's correct.  
7              Q.       From 1951 to 1969 your company, R.J.  
8   Reynolds, did not list the additives to its products  
9   on its packages, correct?

10 A. That's correct. Additives,  
11 ingredients have not been listed.

12 Q. And from 1951 to 1969 your company,  
13 R.J. Reynolds, did not put a list of carcinogens  
14 which its products contained on its packages,  
15 correct?

16 A. That's correct.

17 MR. MIGLIORI: Charles, could I have  
18 the ELMO, please.

19 THE COURT: I'm sorry. Just give us  
20 the identification number.

21 MR. MIGLIORI: This, Your Honor, was  
22 a demonstrative used by defendants. I don't know if  
23 it had a number. I'll show it and maybe they can  
24 identify the number.

25 MR. BIERSTEKER: It did, Your Honor,  
-D. Townsend, Ph.D. - cross - Mr. Migliori- 2874  
1 but I can't recall what it was.

2 THE COURT: We'll get it later.  
3 Supplement.

4 Just for the record, the document  
5 being shown on the ELMO now is R.J. Reynolds Tobacco  
6 Company Offers Smokers a Range of Tar Levels.  
7 That's what it says at the top. We'll supplement  
8 the number.

9 Q. Doctor, this is a demonstrative that  
10 you showed the jury yesterday, correct?

11 A. Yes, it is.

12 THE COURT: I'm sorry. Could you  
13 move -- my screen's being cut off on the left. Can  
14 you just move that over a little bit?

15 MR. MIGLIORI: Absolutely. Is that  
16 better?

17 THE COURT: Yes. That's fine.  
18 Great.

19 Q. I've highlighted on the bottom a  
20 period of time from 1955 to 1975.

21 Doctor, from 19 -- in that period of  
22 time, from 1955 to 1975, did R.J. Reynolds offer any  
23 no tar cigarettes to consumers?

24 A. R.J. Reynolds has not been able to  
25 develop a no tar cigarette that would be anywhere  
-D. Townsend, Ph.D. - cross - Mr. Migliori- 2875  
1 close to consumer acceptable but over that time  
2 period as you note from this chart there was a  
3 massive reduction in tar and nicotine yield from  
4 cigarettes in the market especially and including  
5 those from Reynolds.

6 MR. MIGLIORI: Your Honor, I'd like  
7 to --

8 THE COURT: Okay.

9 MR. MIGLIORI: -- at least have an  
10 instruction or move to strike.

11 THE COURT: Sir, the preface of these  
12 questions is yes or no if you can answer them that  
13 way.

14 THE WITNESS: Okay.

15 THE COURT: Okay?

16 THE WITNESS: Yes, Your Honor.

17 MR. MIGLIORI: Thank you, Your Honor.

18 Q. From 1955 to 1975 did R.J. Reynolds  
19 Tobacco Company offer a no tar product to its  
20 consumers? Yes or no?

21 A. No.  
22 Q. And just on this time line, Doctor,  
23 you joined R.J. Reynolds in 1977?  
24 A. That's right.  
25 Q. That would be over here somewhere?  
-D. Townsend, Ph.D. - cross - Mr. Migliori- 2876  
1 A. Right.  
2 THE COURT: Indicating the line  
3 between '75 and 1980.  
4 MR. MIGLIORI: I'm sorry, Your Honor.  
5 Thank you.  
6 THE COURT: I'm just making the  
7 record.  
8 MR. MIGLIORI: And again, Your Honor,  
9 I'll identify the demonstrative used by its title --  
10 THE COURT: Good. Supplement it  
11 later.  
12 MR. MIGLIORI: Thank you.  
13 This is the next demonstrative. It's  
14 called Camel 70 Major Design Modifications, 1954 to  
15 1958.  
16 Q. Doctor, do you recall testifying  
17 about this demonstrative yesterday?  
18 A. Sure.  
19 Q. And based on this demonstrative I  
20 have also highlighted a period of time -- this I  
21 guess would start at 1953 and ending at 1975.  
22 In that time period, Doctor, did R.J.  
23 Reynolds within its Camel cigarette product line  
24 offer a no car cigarette to its consumers? Yes or  
25 no?  
-D. Townsend, Ph.D. - cross - Mr. Migliori- 2877  
1 A. No.  
2 Q. You described three different aspects  
3 of design that are important and I believe the first  
4 one you mentioned was the objective, correct?  
5 A. Right.  
6 Q. The second one you mentioned was  
7 technically possible. Do you recall that?  
8 A. Technical feasibility or  
9 demonstration of technical feasibility.  
10 Q. And the third one that you suggested  
11 was called commercial acceptability. Do you recall  
12 that?  
13 A. No. I think accurately it was  
14 commercial feasibility which includes a number of  
15 issues most important of which is consumer  
16 acceptance.  
17 Q. Okay.  
18 A. For acceptability.  
19 Q. And of those three characteristics  
20 you said that there are oftentimes conflicts between  
21 those three, correct?  
22 A. Yes, there are.  
23 Q. And I believe you also testified  
24 yesterday that the most important of those three  
25 concepts in the design world is the latter, the  
-D. Townsend, Ph.D. - cross - Mr. Migliori- 2878  
1 consumer feasibility?  
2 A. Consumer acceptability is the most  
3 important. There are a number of other consumer  
4 feasibility or commercial feasibility issues.  
5 Q. Would that also be true, Doctor, when

6 the objective set out in the first concept is  
7 developing a safer cigarette?

8 A. Absolutely. In order to be effective  
9 making a reduced risk or a safer cigarette one must  
10 make a cigarette that people find acceptable enough  
11 to actually smoke.

12 Q. Thanks, Doctor.

13 Isn't it true, Doctor, that yesterday  
14 when you testified about the consumer acceptability  
15 of products with which you were involved at R.J.  
16 Reynolds or about which you had knowledge that you  
17 produced for the jury no data gathered from 1951 to  
18 1975 demonstrating consumer acceptability? Yes or  
19 no?

20 A. For what product in particular?

21 Q. Any product.

22 A. Well, I didn't produce any consumer  
23 acceptance data. We did talk about consumer  
24 acceptance and its importance in great detail.

25 Q. The answer to my question, though,  
-D. Townsend, Ph.D. - cross - Mr. Migliori- 2879  
1 was no?

2 A. There was specifically no data shown  
3 to the jury.

4 Q. Are you aware of the fact, Doctor,  
5 that Connie Mehlman stopped smoking before you  
6 joined R.J. Reynolds?

7 A. I'm not aware of the details.

8 Q. Isn't it true, Doctor, that you  
9 showed no animal testing data with respect to any  
10 products that were being tested at zero tar between  
11 the years 1951 and 1975?

12 A. I'm not sure I understand your  
13 question.

14 Q. Did you show this jury yesterday when  
15 you testified any data with respect to animal  
16 testing of zero tar products prior to 1975?

17 A. I've already testified that R.J.  
18 Reynolds has not had a zero tar product over that  
19 range so it seems inconceivable that we would have  
20 animal data on it.

21 Q. Doctor, you talked about selective  
22 reduction, you talked about selective filtration,  
23 general reduction, reconstituted tobacco, heat  
24 exchangers for farmers that you developed in 1999,  
25 expanded tobacco delivery. And isn't it true,  
-D. Townsend, Ph.D. - cross - Mr. Migliori- 2880  
1 Doctor, that all of these engineering concepts that  
2 you discussed yesterday were concepts with which you  
3 were involved after 1977 when you started with R.J.  
4 Reynolds?

5 A. I've had involvement in each of those  
6 issues in one way or another since I've been at  
7 Reynolds.

8 Q. Doctor, you've testified that you've  
9 reviewed extensively various R.J. Reynolds'  
10 historical documents in order to -- at least in part  
11 as a basis for your opinions that you expressed  
12 yesterday, correct?

13 A. Yes. That's essential.

14 Q. Doctor, I want to show you some  
15 documents that you didn't show the jury yesterday  
16 with respect to development of safer cigarettes at

17 R.J. Reynolds.  
18 MR. MIGLIORI: May I have 43459.  
19 MR. BIERSTEKER: May I have a copy,  
20 please?  
21 MR. MIGLIORI: Sure.  
22 Q. Doctor, you testified in a case  
23 called Falese. Is that correct?  
24 A. I did.  
25 THE COURT: Before you do this, can  
-D. Townsend, Ph.D. - cross - Mr. Migliori- 2881  
1 you identify this document? I have no  
2 identification what this is.  
3 MR. MIGLIORI: I will, Your Honor.  
4 Thank you.  
5 Q. Your company, R.J. Reynolds, produced  
6 this document in that litigation. Is that correct?  
7 A. I really don't know. I don't see an  
8 author, I don't see -- see a title, I don't see a  
9 date. Nowhere does it says -- that we say as we  
10 typically do, you know, an RJR memorandum or  
11 letterhead. Doesn't use a letterhead. I don't  
12 know. I can't tell from this.  
13 Q. Doctor, this document has been  
14 produced in the course of discovery. Are you  
15 familiar with this document?  
16 A. I've seen this document briefly. I  
17 don't know whether it's an RJR document or not.  
18 Again, you know, it's -- it's not even clear to me  
19 from what you're showing here who the author is.  
20 Q. Let me read it to you, Doctor, and  
21 see if this is consistent with your understanding  
22 historically of research and design at R.J.  
23 Reynolds.  
24 It says, We have reviewed the  
25 research projects under consideration by the general  
-D. Townsend, Ph.D. - cross - Mr. Migliori- 2882  
1 tobacco industry and would like to offer the  
2 following comments and recommendations.  
3 Before proceeding to the individual  
4 research projects some general comments regarding  
5 the overall research program are in order.  
6 First, the authorizing statutes  
7 especially as interpreted in the individual project  
8 evaluations make it abundantly clear that the  
9 research program is aimed at product modification  
10 and development of so-called safe cigarettes.  
11 RJR has always rejected the idea of  
12 developing a safe cigarette as being based on an  
13 unfounded assumption; to wit, current cigarettes are  
14 unsafe. Instead, RJR's position has always been and  
15 still is that cigarettes have not been  
16 scientifically established as disease-producing in  
17 human smokers. Accordingly, any research program  
18 which has as its goal the development of a safe  
19 cigarette is in our judgment proceeding on a faulty  
20 premise.  
21 Doctor, is what I just read  
22 consistent with your experience at R.J. Reynolds?  
23 A. It's absolutely inconsistent. It is  
24 not consistent with my experience at Reynolds and I --  
25 again, I don't know what this document is, who wrote  
-D. Townsend, Ph.D. - cross - Mr. Migliori- 2883  
1 it. Do you know the author?

2 THE COURT: Doctor, I'm going to give  
3 you an instruction.  
4 THE WITNESS: Yes, ma'am. I'm sorry.  
5 THE COURT: Okay.  
6 MR. MIGLIORI: Gina, turn to Page 2,  
7 please. Thank you.  
8 Q. Project P1. This project is based on  
9 the faulty premise, there are compounds in smoke  
10 that are disease-producing in humans and therefore  
11 there is a need to identify and remove these  
12 compounds.  
13 As noted above this premise has never  
14 been accepted by RJR and it is, in fact,  
15 inconsistent with its position that cigarettes have  
16 not been shown to be hazardous to human smokers.  
17 Doctor, is that statement I just read  
18 consistent with your experience at R.J. Reynolds?  
19 MR. ROSENBERG: Your Honor, may I  
20 object at side bar?  
21 THE COURT: Sure.  
22 (The following takes place at side  
23 bar:)  
24 MR. ROSENBERG: I think that this  
25 line of questioning is improper given the complete  
-D. Townsend, Ph.D. - cross - Mr. Migliori- 2884  
1 lack of foundation. The witness has been shown a  
2 document without any foundation for the document.  
3 The witness has no idea who wrote the document.  
4 There's no indication what the date of the document  
5 is. There's -- I don't think this is a proper -- I  
6 don't think this is a proper way to go about  
7 questioning a witness even on cross-examination. I  
8 think there had to be a predicate question and then  
9 if he's going to be impeached with the document,  
10 then the witness has no idea what the document is, I  
11 don't see where the impeachment goes.  
12 THE COURT: Ditto with you?  
13 MR. BIERSTEKER: Ditto.  
14 THE COURT: Okay. I just want to be  
15 sure.  
16 MR. MIGLIORI: Your Honor, he has  
17 stated that he has seen this document before --  
18 THE COURT: No. He said -- he stated  
19 he saw the first document before. You see, when you  
20 give me -- let me just tell you my confusion.  
21 When you give me an item number,  
22 okay, I don't know if it's in evidence, it's not in  
23 evidence. That's why I ask you, you know, if it's  
24 something we select -- example, the Surgeon General  
25 report. Okay. That I know is in evidence. I know,  
-D. Townsend, Ph.D. - cross - Mr. Migliori- 2885  
1 okay?  
2 MR. MIGLIORI: I can -- I'll be glad  
3 to tell you which ones are and are not in evidence.  
4 That's -- easy enough. What this is impeaching is  
5 not his testimony on the document. It's --  
6 THE COURT: Go ahead.  
7 MR. MIGLIORI: It's impeaching his  
8 testimony yesterday about his experience at R.J.  
9 Reynolds about their concern for safer cigarettes.  
10 THE COURT: I'm not worried about the  
11 impeachment issue. The impeachment issue is not the  
12 problem. Counsel's point is that if you have a

13 document from Falese or whatever trial -- it doesn't  
14 matter, okay -- you can do what you want to the  
15 witness. You can say, Doctor, this is from X, Y and  
16 Z study, okay? It's document 1234 in evidence.  
17 Turning to Page 5 of this document, you know, and  
18 then your question, or you can say, Doctor, accept  
19 that this document has been produced in the Falese  
20 trial or the White trial or whatever trial --

21 MR. BIERSTEKER: I think you said  
22 Falese.

23 MR. MIGLIORI: This one's Falese.

24 THE COURT: What's the other trial?

25 MR. MIGLIORI: Wiley.

-D. Townsend, Ph.D. - cross - Mr. Migliori- 2886

1 THE COURT: Wiley. And so accept  
2 that this has been produced by RJR.

3 You're just starting in the middle.  
4 That's counsel's objection, okay? He's just saying,  
5 you know -- you just can't start -- the things that  
6 you're trying to impeach, that's not the problem.  
7 It's the methodology of what you're doing is what  
8 he's objecting to. Is that correct?

9 MR. ROSENBERG: That's correct.

10 THE COURT: Okay. I just want to be  
11 sure.

12 At least he's not bringing his laptop  
13 which was really helpful.

14 (The following takes place in open  
15 Court:)

16 BY MR. MIGLIORI:

17 Q. Doctor, I want to first ask you if I  
18 read that paragraph correctly?

19 A. As I recall you did.

20 Q. And I want to ask you whether or not,  
21 in fact, you accept my representation that this  
22 document was produced in the Falese litigation?

23 A. It does say produced in Falese.

24 Q. Okay. And, Doctor, I want to return  
25 to my question.

-D. Townsend, Ph.D. - cross - Mr. Migliori- 2887

1 Is what I just read in that paragraph  
2 consistent with your experience at R.J. Reynolds  
3 Tobacco Company with respect to cigarette design?

4 A. It's completely inconsistent with my  
5 experience at R.J. Reynolds.

6 Q. Thank you, Doctor.

7 Doctor, are there any other documents  
8 at R.J. Reynolds that are consistent with the  
9 representations made in that last document with  
10 respect to the history of R.J. Reynolds Tobacco  
11 Company and cigarette design?

12 A. I've run across several documents  
13 that are inconsistent with my experience at  
14 Reynolds.

15 Q. And, Doctor, I want to show you.  
16 This is a document that has not yet been put into  
17 evidence. It's number 43063 and I have a copy for  
18 you.

19 MR. MIGLIORI: Peter.

20 THE COURT: Don't put it up yet.  
21 Don't put it up yet. Wait.

22 (Pause.)

23 THE COURT: Go ahead.



24 MR. MIGLIORI: Thank you, Your Honor.  
25 May we show it to identify?  
-D. Townsend, Ph.D. - cross - Mr. Migliori- 2888  
1 THE COURT: (Indicates.)  
2 MR. MIGLIORI: Thank you.  
3 Q. This is a document on R.J. Reynolds  
4 letterhead dated June 10, 1982 and it's entitled Re,  
5 Trip Report On The 5th International Symposium on  
6 the Prevention and Detection of Cancer. San Paulo,  
7 Brazil, May 16th to the 22nd, 1982.  
8 Doctor, have you seen this document  
9 before?  
10 A. No, I haven't. I don't think so.  
11 Q. I'd like to direct your attention to  
12 Page 8 of this document, the very last page. The  
13 very last page. And on the bottom there's a name  
14 there. Do you recognize that person, Frank G.  
15 Colby?  
16 A. I know Frank Colby.  
17 Q. Okay. Doctor, I'd like to ask you,  
18 if you will --  
19 MR. MIGLIORI: Gina, it would be Page  
20 7.  
21 Q. And this is Subparagraph C, Visit  
22 With R.J. Reynolds Tobacco To Brazil Limited and  
23 ABIFUMO I believe is the pronunciation of that and  
24 it says, On Saturday -- I'm sorry.  
25 On Sunday, May 23rd, 1982 I had a  
-D. Townsend, Ph.D. - cross - Mr. Migliori- 2889  
1 very pleasant visit with Mr. Carlos Jardim who I met  
2 a few months ago in Winston, Salem.  
3 Further on down below it says, Carlos  
4 and I had a very satisfactory meeting with the three  
5 executives of ABIFUMO. One of them declared  
6 unequivocally that he agreed with the RJR position  
7 and more importantly that he considered the safe  
8 cigarette concept in his words suicidal from the  
9 long-range industry point of view.  
10 I discussed this later privately with  
11 Carlos and he said that he was unable to judge to  
12 what extent -- I'm sorry. The next page.  
13 THE COURT: You have to go to the  
14 next page, 8. 8.  
15 Q. -- unable to judge to what extent  
16 this comment was sincere or an effort to be pleasant  
17 to a visitor.  
18 Doctor, have you ever seen this  
19 document before?  
20 A. No, I haven't.  
21 Q. Is it consistent with your view of  
22 the history of R.J. Reynolds Tobacco Company in the  
23 area of safe cigarette design that it would be  
24 suicidal in the long range for the industry to  
25 continue to research safer cigarettes?  
-D. Townsend, Ph.D. - cross - Mr. Migliori- 2890  
1 A. May we go back to that page, please?  
2 Q. Sure. It's Page 7 on the bottom.  
3 And I'll repeat my question, Doctor: Yes or no. Is  
4 that consistent with your understanding of the  
5 history of R.J. Reynolds?  
6 A. The concept that the safer cigarette  
7 is suicidal is inconsistent with my experience at  
8 Reynolds. Without question. It's not clear to me

9 from the sentence, however, that that was a  
10 statement of an RJR position or whether it was  
11 Carlos's position the way this sentence is  
12 structured.

13 Q. Sure. And the last sentence says  
14 that, I discussed this later privately with Carlos  
15 and he said that he was unable to judge to what  
16 extent this comment was sincere or an effort to be  
17 pleasant to the visitor.

18 Did I read that correctly?

19 A. You read that correctly.

20 Q. And, Doctor, you didn't show this  
21 document to the jury yesterday, did you?

22 A. No, I didn't.

23 Q. I have one more historical document,  
24 Doctor, with respect to Reynolds. This is a  
25 document that's numbered 37350.

-D. Townsend, Ph.D. - cross - Mr. Migliori- 2891

1 MR. MIGLIORI: Before you put it up,  
2 Gina, let me hand a copy to Peter.  
3 (Pause.)  
4 MR. MIGLIORI: Thank you, Your Honor.  
5 Gina, could you go to Page 1, please.  
6 Q. Again, this is marked 37350. It's  
7 dated March 12, 1983 in draft.  
8 Doctor, have you seen this document  
9 before?

10 A. Can you go back to the whole page?  
11 Sorry.  
12 I don't recall seeing this document.  
13 Q. Okay. Will you accept my  
14 representation that this was produced in the  
15 Minnesota Attorney General action?

16 A. Yes, I'll accept that. That's what  
17 it says on the margin.

18 MR. MIGLIORI: The very first  
19 sentence, Gina. It says -- actually a little bit  
20 more than that, Gina. Thank you.

21 Q. On March 8th, 1983 I met with Dr. Bob  
22 DeMarco. Do you know who Bob DeMarco is?

23 A. Yes.  
24 Q. And who is he?  
25 A. He's a former head of research and

-D. Townsend, Ph.D. - cross - Mr. Migliori- 2892

1 development at R.J. Reynolds.  
2 Q. Okay. Actually that's the position  
3 you now hold, correct?

4 A. Yes.  
5 Q. On March 8th, 1983 I met with Mr. Bob  
6 DeMarco at his office in Winston Salem, North  
7 Carolina. The purpose of the meeting was to review  
8 a White Paper on smoking and health which our office  
9 was preparing for Reynolds Germany.

10 MR. MIGLIORI: Gina, can you turn to  
11 Page 3. Actually, from -- the first full paragraph  
12 down, please. The next -- okay.  
13 Q. At this point in the conversation I  
14 suggested that we turn to the White Paper so that BD --  
15 and is it safe for us to assume that that's Bob  
16 DeMarco?

17 A. I think that would be fair to assume,  
18 sure.  
19 Q. Okay. That BD could feel comfortable

20 with it. He said that he had no substantial problem  
21 with it. Bob DeMarco said that there were two  
22 things in the conclusion that he wanted to discuss  
23 with me.

24 First, he said that the conclusion  
25 called for more research but not the kind of  
-D. Townsend, Ph.D. - cross - Mr. Migliori- 2893  
1 research that he wanted to do; i.e., research aimed  
2 at reducing the risks associated -- associated with  
3 smoking.

4 I told BD that if by risk of smoking  
5 he meant research directed as a safer or less  
6 hazardous cigarette neither the company nor the  
7 industry to my knowledge has done such research.

8 I explained that to date the company  
9 has been concerned that a research effort aimed at  
10 producing a safer cigarette would be viewed as an  
11 admission that current or old products were  
12 dangerous.

13 I told BD that it was likely that  
14 this situation --

15 THE COURT: Wait. We're off the  
16 screen.

17 MR. MIGLIORI: I'm sorry.

18 THE COURT: Okay. Go ahead.

19 MR. MIGLIORI: Thank you.

20 Q. I told BD that it was likely that  
21 this situation is changing and that research could  
22 and probably should go forward directed at the  
23 question of whether or not, quote, tar, end quote,  
24 nicotine, carbon monoxide or any other ingredient in  
25 smoke has any health consequence. I stated that the

-D. Townsend, Ph.D. - cross - Mr. Migliori- 2894  
1 company might well need to do this research because  
2 while it has not been proven to date it might turn  
3 out that Wynder, Gori and others are right and these  
4 ingredients do --

5 THE COURT: Going to Page 4.

6 MR. MIGLIORI: Thank you, Your Honor.

7 Q. -- have health consequences. And the  
8 very last sentence of that paragraph.

9 I went on to explain that since the  
10 company to date has not done the kind of risk  
11 reduction research that BD wants to do, it would be  
12 injudicious to call for such research in this paper.  
13 BD said that he agreed with me.

14 Now, again, in 1983 was Bob DeMarco  
15 head of research and development at R.J. Reynolds?

16 A. Just barely. He was a new employee.

17 Q. And at that point, in fact, Bob  
18 DeMarco was your superior?

19 A. Yes.

20 Q. He was your boss?

21 A. Yes.

22 Q. And at that point in time this  
23 document reflects that no such research into  
24 product, safer cigarettes, had been done by R.J.  
25 Reynolds according to this author, correct?

-D. Townsend, Ph.D. - cross - Mr. Migliori- 2895  
1 A. According to this document but that's  
2 really inconsistent because we had the Premier  
3 project going on for at least two years at that  
4 point.

5 Q. I thought you testified yesterday  
6 that Premier started in 1984?  
7 A. '81.  
8 Q. This document's dated 1983. Is that  
9 correct?  
10 A. Yes.  
11 Q. So the in -- correction is that it  
12 started in '81, not in '83, this research?  
13 A. The Premier project covered the time  
14 period from 1981 to 1988 when we actually put it in  
15 test market.  
16 Q. Let's change gears a little bit here,  
17 Doctor.  
18 You talked about Eclipse and Premier  
19 yesterday, correct?  
20 A. Sure.  
21 Q. And you testified that both the  
22 Eclipse and Premier cigarettes meet the Bureau --  
23 actually I don't know that you even referred to the  
24 Bureau of Alcohol, Tobacco and Firearms. You said  
25 Congress I think yesterday. That the definition of  
-D. Townsend, Ph.D. - cross - Mr. Migliori- 2896  
1 a cigarette is tobacco wrapped in paper, correct?  
2 A. Congress defined what a cigarette is  
3 and said it was tobacco wrapped in paper.  
4 Q. And technically it was the Bureau of  
5 Alcohol, Tobacco and Firearms that did that,  
6 correct?  
7 A. I'm not sure of those details.  
8 Q. Okay. And, Doctor, isn't it true  
9 that both the Eclipse and the Premier cigarettes  
10 that you demonstrated to the jury yesterday are  
11 cigarettes as defined by Congress, correct?  
12 A. Yes.  
13 Q. And those were both products that  
14 were tested after you got to RJR in 1977, correct?  
15 A. That's right.  
16 Q. Doctor, the Premier cigarette is no  
17 longer available, correct?  
18 A. That's right.  
19 Q. In fact, I understand that the  
20 package you used yesterday was one of the last  
21 packages you could find?  
22 A. We have more.  
23 Q. Okay.  
24 A. Not many more but...  
25 Q. And Eclipse is on the market now,  
-D. Townsend, Ph.D. - cross - Mr. Migliori- 2897  
1 correct?  
2 A. That's right.  
3 Q. Are you -- where you live in North  
4 Carolina in the test market for Eclipse?  
5 A. We have outlets in Winston Salem.  
6 Winston -- but North Carolina is not a test market  
7 area.  
8 Q. Okay. So in Winston Salem you're able  
9 to purchase Eclipse, correct?  
10 A. Yes. And people in 38 states are  
11 able to by mail order and Internet.  
12 Q. And in New Brunswick, New Jersey, if  
13 I wanted to order -- if anyone wanted to order  
14 Eclipse cigarettes they would not be able to walk  
15 into the newsstand or the convenience store, would

16 they?  
17 A. That's right. They're not at retail  
18 in New Jersey.  
19 Q. They would have to go on-line, order  
20 from the Internet?  
21 A. I don't think that's possible because  
22 New Jersey has a ban on mail order cigarettes.  
23 Q. You told the jury that you smoke now  
24 Eclipse and Ultra Salem Lights. Is that correct?  
25 A. Salem Ultra Light, yes.  
-D. Townsend, Ph.D. - cross - Mr. Migliori- 2898  
1 Q. I'm sorry. I don't smoke so I  
2 apologize.  
3 Isn't it true, Doctor, that you've  
4 testified in more than one case that you cannot tell  
5 this jury whether or not the two brands of cigarette  
6 that you smoke -- whether one brand is safer than  
7 another?  
8 A. The -- that is true. There are not  
9 defined accepted biological tests that the entire  
10 scientific community believes will -- will  
11 demonstrate beyond a doubt that one cigarette is  
12 safer than the other.  
13 Q. And neither Eclipse or Premier are  
14 zero tar cigarettes, correct?  
15 A. They both deliver some tar. In the  
16 case of Premier, that tar is generated by only  
17 heating tobacco. In the case of Eclipse that tar is  
18 generated by heating -- by burning only a very, very  
19 small of tobacco but they both deliver tar.  
20 Q. Okay. Thank you.  
21 MR. MIGLIORI: Charles, could I have  
22 the ELMO?  
23 This is the last demonstrative from  
24 yesterday, Judge. This one's entitled Tar  
25 Comparison, Premier Versus Tobacco Burning  
-D. Townsend, Ph.D. - cross - Mr. Migliori- 2899  
1 Cigarettes. And we will identify it --  
2 THE COURT: Okay.  
3 MR. MIGLIORI: -- more specifically  
4 later in the break.  
5 Q. Do you recall this demonstrative?  
6 A. Sure.  
7 Q. Now, I apologize. I only have black  
8 and white copies of this and this is probably the  
9 only demonstrative where it might make a difference  
10 but you discussed these Cambridge pads yesterday  
11 with the jury, did you not?  
12 A. Yes.  
13 Q. And you went through how Premier  
14 compares with each of these different types of  
15 full-flavored cigarettes and Ultralight cigarettes,  
16 correct?  
17 A. I think that's a generalization.  
18 What I tried to do with this  
19 demonstrative was that the composition of the tar  
20 was different by virtue of the different colors --  
21 the color differences across these pads.  
22 Q. Okay. And you were not telling the  
23 jury that any one of these cigarettes is safer than  
24 another, correct?  
25 A. That's correct.  
-D. Townsend, Ph.D. - cross - Mr. Migliori- 2900

1 Q. Because isn't it true, Doctor, that  
2 you cannot tell the jury that Premier is any safer  
3 than the nonfiltered cigarette, the two extreme  
4 Cambridge pads that are represented in the  
5 demonstrative, correct?  
6 A. Again, I cannot -- I cannot and I  
7 don't think anyone can tell anyone that Premier is  
8 safer than a tobacco-burning cigarette beyond a  
9 shadow of a doubt. There's a lot of evidence that  
10 suggests it may be. I personally believe it  
11 probably is.  
12 Q. Doctor, none of these cigarettes,  
13 none of the Cambridge pads that are represented here  
14 represent a cigarette that you can tell this jury is  
15 safer than another one, correct?  
16 A. Again, this -- you're mixing two  
17 issues.  
18 What this is doing is showing the  
19 difference.  
20 If you're asking me is -- how can you  
21 define whether one cigarette is safer than another,  
22 there is no scientifically-accepted protocol that  
23 allows anyone to say definitively this cigarette is  
24 safer than this one; however, there's a lot of data  
25 that suggests that Premier probably is.  
-D. Townsend, Ph.D. - cross - Mr. Migliori- 2901  
1 MR. MIGLIORI: Your Honor, I move to  
2 strike. I'm simply asking a yes or no question.  
3 THE COURT: I'll do it at side bar.  
4 Come on over.  
5 (The following takes place at side  
6 bar:)  
7 THE COURT: Mr. Biersteker, you rose  
8 to object and I called you to side bar so what's  
9 your objection?  
10 MR. MIGLIORI: Yes, Your Honor.  
11 THE COURT: No. He objected. He's  
12 Biersteker.  
13 MR. BIERSTEKER: Actually, Mr.  
14 Migliori objected.  
15 MR. MIGLIORI: I thought I distracted --  
16 MR. BIERSTEKER: No. I think the  
17 witness is being entirely responsive to the  
18 questions. He's saying, I'm agreeing with you but  
19 there's an explanation and he's providing it and  
20 we've had lots of witnesses in this case so far.  
21 And Dr. Burns, for example, gave explanations that  
22 were responsive in this way and that was permitted  
23 and I think he should be do the same thing. He's  
24 providing further explanation where he thinks it's  
25 appropriate.  
-D. Townsend, Ph.D. - cross - Mr. Migliori- 2902  
1 THE COURT: I haven't stopped it. Did  
2 you see me stop it?  
3 MR. BIERSTEKER: No.  
4 MR. ROSENBERG: May I just add one  
5 point?  
6 The question had to do with whether  
7 or not he could represent that this one cigarette  
8 was safer --  
9 THE COURT: That's the issue.  
10 MR. ROSENBERG: And he explained his  
11 answer in terms of the definition of safer and he

12 basically said you can't -- it depends on what was  
13 meant by safer. He didn't -- in the context of no  
14 governmental standard and that's totally appropriate  
15 with a question that's as broad as that.

16 MR. MIGLIORI: My point is -- and I  
17 won't push it -- that our witnesses have been  
18 admonished to say if you can't answer yes or no to  
19 just say I can't say yes or no.

20 THE COURT: What he's saying, there's  
21 two concepts. You're saying -- are you asking him  
22 about the tar delivery on the pad, okay, or, you  
23 know, because his position is unless a hundred  
24 percent of the scientific community agrees on a  
25 definition of what is safer, then I can't answer

-D. Townsend, Ph.D. - cross - Mr. Migliori- 2903  
1 that question.

2 MR. MIGLIORI: And that's -- and  
3 that's fine and I understand that and I would  
4 rephrase it if he said that I can't answer that yes  
5 or no but now what he's doing -- what he's been  
6 doing all morning is adding an editorial and then  
7 answering the question. I just want to move it  
8 along but I will rephrase it.

9 THE COURT: Look, I'm not moving it  
10 along for the sake of taking someone's testimony  
11 out.

12 MR. MIGLIORI: I know.

13 THE COURT: Okay? The previous  
14 witnesses have all added editorial comment to a  
15 point that I would stop them. In fact, I thought  
16 they were going on to an unrelated narrative of what  
17 the question was and I think that's fair for the  
18 Court to do, okay? However, his question is not I'm  
19 not answering your question. He's quibbling with  
20 the definition of what safer is so my recollection  
21 of the testimony -- and I'm just one person's  
22 recollection -- what was the residue left on the  
23 filters, okay, of delivery of -- if you had, you  
24 know, so many milligrams versus down to, you know,  
25 nothing and that was the --

-D. Townsend, Ph.D. - cross - Mr. Migliori- 2904

1 MR. MIGLIORI: Right.

2 THE COURT: -- gradation. If you  
3 want to rephrase it in that context, that's fine.  
4 You're not going to get an answer from him on the  
5 word safer because he has taken a position that not  
6 100 percent of the scientific community has made a  
7 definition of safer.

8 MR. MIGLIORI: Your Honor, I think  
9 when he made that -- gave that testimony yesterday  
10 he left the impression that Eclipse was safer.

11 I have testimony which I can rephrase  
12 the question and I can impeach him with his prior  
13 testimony on that issue.

14 THE COURT: You're entitled to.  
15 You're entitled to. This is my general rule and has  
16 been my general rule on this trial. People have  
17 broad discretion on cross-examination because that's  
18 the point of cross-examination to probe the  
19 knowledge of a witness, okay, to find out what the  
20 witness's knowledge is on a subject. Impeachment is  
21 a very important factor in cross-examination and I  
22 have not restricted anybody on impeachment.

23 MR. MIGLIORI: No.  
24 THE COURT: However, if you go back  
25 and ask him the same question on safer we're getting  
-D. Townsend, Ph.D. - cross - Mr. Migliori- 2905  
1 nowhere so if you want to rephrase it and break it  
2 down I'm not rushing you.  
3 MR. MIGLIORI: No. I know.  
4 THE COURT: But I'm just telling you  
5 you're not going anywhere asking him safer. Is that  
6 fair?  
7 MR. BIERSTEKER: That's fair.  
8 MR. ROSENBERG: Okay.  
9 (The following takes place in open  
10 Court:)  
11 BY MR. MIGLIORI:  
12 Q. Doctor, looking at this demonstrative --  
13 THE COURT: Again, this is the tar  
14 comparison demonstrative that's on the board. Go  
15 ahead.  
16 Q. -- is Premier safer than the  
17 Ultralight cigarette next to it?  
18 A. There's no way to definitively say  
19 that Premier is safer than the Ultralight cigarette  
20 at this point.  
21 Q. Thank you.  
22 MR. MIGLIORI: We can take that down,  
23 Charles.  
24 Q. Now, we've talked quite a bit about  
25 the tar-reducing technologies with which you became  
-D. Townsend, Ph.D. - cross - Mr. Migliori- 2906  
1 familiar after 1977. And all of those technologies  
2 since you've been at R.J. Reynolds have been used to  
3 reduce tars in cigarette smoke, correct?  
4 A. Those techniques have been used  
5 across time to reduce tar and nicotine yields, yes.  
6 Q. And none of those technologies since  
7 you've been at R.J. Reynolds from 1977 have been  
8 used to completely eliminate tar from cigarette  
9 smoke in any RJR Reynolds product, true?  
10 A. There is no zero tar cigarette that  
11 Reynolds has produced.  
12 Q. You talked a little bit about  
13 selective reduction and I believe you said yesterday  
14 that you have found that selective reduction since  
15 19 or since you started using that technology at RJR  
16 hasn't been working, correct?  
17 A. That's not my words actually.  
18 Q. What --  
19 A. What I said is it's technically  
20 difficult. It's very difficult to make consumer-  
21 acceptable products but there are selective  
22 reductions that occur in conventional cigarettes.  
23 For example, the volatile phenols, the volatile  
24 nitrosamines. We've developed some cigarettes that --  
25 that use further reduction, selective reduction  
-D. Townsend, Ph.D. - cross - Mr. Migliori- 2907  
1 techniques as well including special blends and  
2 special very different filters.  
3 Q. And despite the difficulty you've had  
4 in that technology, that is, the selective  
5 reduction, you continue to venture in that area of  
6 cigarette design, correct?  
7 A. Oh, we're doing more than venture.



8 We have a number of very intense projects actually.  
9 Q. Doctor, I want to show you a document  
10 that is, in fact, in evidence and I believe Mr.  
11 Biersteker used it with you yesterday.  
12 It's plaintiff's number 7593.  
13 And, Doctor, this document is dated  
14 November 2, 1959 and on top it says Mr. Kenneth  
15 Hoover. Who's Mr. Kenneth Hoover?  
16 A. Mr. Hoover was an executive at R.J.  
17 Reynolds long ago.  
18 Q. And the last page of this document,  
19 just to identify it, this document is signed by Mr.  
20 Alan Rodgman?  
21 A. Yes.  
22 Q. And at that time Mr. Rodgman was your  
23 boss?  
24 A. At this point in time?  
25 Q. Oh, actually in 1959 you were ten  
-D. Townsend, Ph.D. - cross - Mr. Migliori- 2908  
1 years old or twelve years old?  
2 A. Right. About twelve years old.  
3 Q. But that is the same Alan Rodgman,  
4 correct?  
5 A. Yes. That's his signature. I know  
6 it well.  
7 Q. I'm sure you do, Doctor.  
8 Going back to the first page it says --  
9 and it's entitled The Optimum Composition of Tobacco  
10 and Its Smoke.  
11 MR. MIGLIORI: Actually Gina, if you  
12 could show the first three paragraphs.  
13 Q. Yesterday, Mr. Biersteker highlighted  
14 for you the second paragraph that begins with the  
15 word a. I want to direct your attention to two  
16 paragraphs he didn't highlight; specifically the  
17 first one.  
18 It says in 1954 the first report of  
19 the -- of carcinogenic (cancer-producing) polycyclic  
20 hydrocarbon 3,4 benzpyrene in cigarette smoke was  
21 published. Since then approximately 60 similar  
22 compounds have been isolated from a -- of  
23 cigarettes.  
24 Do you agree, Doctor, that at least  
25 as early as 1954 R.J. Reynolds was aware of  
-D. Townsend, Ph.D. - cross - Mr. Migliori- 2909  
1 carcinogens in its product?  
2 A. Specifically benzpyrene, yes.  
3 Q. Okay. Dropping down to the next  
4 highlighted area. It says, Medical experience has  
5 shown that -- medical experience has shown that man  
6 responds to various chemical substances in the same  
7 manner as experimental animals. It follows  
8 therefore that it would be better for the consumer  
9 if cigarette smoke were devoid of such compounds.  
10 Doctor, do you agree that it would be  
11 better for the consumer of R.J. Reynolds' tobacco  
12 products that cigarette smoke be devoid of such  
13 compounds?  
14 A. Absolutely, and that's been the goal  
15 of our reduced risk program.  
16 Q. And to date R.J. Reynolds has not  
17 marketed a product that produces no tar for its  
18 smokers?

19 A. I'll say once again that we have  
20 never marketed a no tar product.

21 Q. Moving on, Doctor, the -- you  
22 testified yesterday that you personally believe  
23 today that smoking causes lung cancer in some  
24 people, correct?

25 A. What I said is it's a serious  
-D. Townsend, Ph.D. - cross - Mr. Migliori- 2910  
1 inherent risk for a number of diseases. There's no  
2 question about it and what I also said was I believe  
3 that cigarette smoking may cause it for some  
4 individuals.

5 Q. And that was your personal belief?

6 A. I believe that very much, yes.

7 Q. Okay. And you regard yourself as  
8 honest and credible?

9 A. Of course.

10 Q. And you regard R.J. Reynolds as  
11 honest and credible?

12 A. Yes. The people that work at  
13 Reynolds are excellent scientists. They're honest,  
14 they're credible, exceptional people.

15 Q. Would you agree that people, smokers  
16 are entitled to rely on what you and your company  
17 has said about smoking and health?

18 A. You mean whether or not cigarette  
19 smoking causes disease?

20 Q. Yes.

21 A. I think people know -- there's --  
22 people are aware of what's been said about cigarette  
23 smoking more than probably any other issue. I mean,  
24 I'm not sure what Reynolds or anybody else would say  
25 that would change that situation.

-D. Townsend, Ph.D. - cross - Mr. Migliori- 2911

1 Q. Doctor, do you believe that people  
2 who smoke your products are entitled to rely on what  
3 you and your company has said about smoking your  
4 product?

5 MR. BIERSTEKER: Objection, Your  
6 Honor. This is beyond the scope.

7 THE COURT: Actually, you know what?  
8 I would like to see you at side bar on this.  
9 (The following takes place at side  
10 bar:)

11 MR. BIERSTEKER: Yesterday when I  
12 wanted to ask Dr. Townsend questions about consumer  
13 acceptance or products which is very much part of  
14 his work I had to lay extensive foundation. This  
15 man has no knowledge about things like consumer  
16 perceptions, awareness, the kinds of common  
17 knowledge issues that I think Mr. Migliori is now  
18 trying to explore and I didn't do that with him on  
19 direct examination.

20 MR. ROSENBERG: And I'll add ditto in  
21 that it is clearly beyond this witness's proffer as  
22 a design expert testifying only to design and  
23 development issues and he did not testify as to  
24 public statements in any way by R.J. Reynolds. I  
25 think he's clear about that.

-D. Townsend, Ph.D. - cross - Mr. Migliori- 2912

1 MR. MIGLIORI: I asked him whether or  
2 not he gave testimony about smoking causing lung  
3 cancer and he said yes. I asked him -- he is a

4 person that is not only a scientist -- as an expert,  
5 a cigarette design person, he's a -- he's  
6 represented himself as a senior vice-president of a  
7 company and this is clearly something he's involved  
8 in. He speaks with the media. He's a person that  
9 has made representations about their products. This  
10 is testimony that he has given in other cases and  
11 it's directly related to his testimony yesterday  
12 about the great job that R.J. Reynolds has been  
13 doing in the area of smoking and health.

14 THE COURT: See, I'm waiting for you.

15 MR. BIERSTEKER: He is a senior  
16 person but with respect to R and D and his media  
17 exposure if you want to ask him about statements  
18 that he made about fire-safe cigarettes or whatever,  
19 that's fine. This is different. And when he  
20 expressed his opinion about the health consequences  
21 of smoking I was very careful to say, You're not a  
22 doctor but do you have a personal opinion. That was  
23 all I was trying to -- that's all I did. That's all  
24 I did.

25 THE COURT: You know what -- I'm  
-D. Townsend, Ph.D. - cross - Mr. Migliori- 2913  
1 sorry. Go ahead.

2 MR. MIGLIORI: I think just that it  
3 leaves the jury with an impression that that is the  
4 position of the company. That's the only area I'm  
5 exploring.

6 THE COURT: Maybe I -- maybe I took  
7 this different perspective. This is on a failure to  
8 warn issue so that's why I asked you to come to side  
9 bar to discuss it; however, I counted at least three  
10 times yesterday that the words Readers Digest was  
11 used by this witness talking about common knowledge  
12 which had nothing to do with R and D but -- wait a  
13 minute. Let me finish. I heard everyone out.

14 MR. BIERSTEKER: That's fine.

15 THE COURT: -- which had nothing to  
16 do with R and D.

17 Now, I cautioned Mr. Biersteker  
18 yesterday that I wanted him to lay a foundation  
19 having to do -- because I didn't know whether it was  
20 his division or somebody else who was talking about  
21 consumer expectation, consumer knowledge, and he did  
22 that and we found that it was the marketing  
23 division. My assumption was and it was confirmed at  
24 side bar that anybody who designs cigarettes R and D  
25 must rely on information given to them by the

-D. Townsend, Ph.D. - cross - Mr. Migliori- 2914  
1 marketing department which he fessed up to.

2 This question, unless there's a  
3 predicate for a whole other line, it seems to me  
4 that is a question. The company's honest so what  
5 you're saying it has to be honest and people should  
6 be able to rely on it.

7 That's no different to me than  
8 saying, Look. This was the common knowledge that  
9 was in Readers Digest. It was in the papers, you  
10 know. This is your personal choice. He must have  
11 said personal choice at least 15 times today --  
12 that's an exaggeration. Cumulative of yesterday and  
13 today and -- and he put it in so is this a one-  
14 question shot or is this an open -- opening to

15 something else?

16 MR. MIGLIORI: It's about four  
17 questions and it specifically deals with the change  
18 in testimony about his personal beliefs and RJR  
19 publicly stating from '54 to today that they don't  
20 think it's been scientifically proven.

21 THE COURT: I think you're going to  
22 have to ask him with that in mind. Is it your  
23 personal belief? Do you have knowledge as to the  
24 position of the company?

25 MR. MIGLIORI: Be glad to do that.  
-D. Townsend, Ph.D. - cross - Mr. Migliori- 2915

1 THE COURT: Because yesterday he gave  
2 the answer, That's what my company believes and  
3 that's what I believe and that came in at least  
4 twice so -- that's why I kept saying when you say  
5 we --

6 MR. MIGLIORI: We.

7 THE COURT: I said is it we, the  
8 people in my department? We the people in my  
9 department or we RJR or we the industry?

10 MR. BIERSTEKER: But I think as to  
11 this specific issue it was always personal and it  
12 was --

13 THE COURT: Well, I don't know that.  
14 That's why I kept saying which -- wait a minute.

15 MR. ROSENBERG: Okay.

16 THE COURT: -- which we yesterday.  
17 That's what I kept saying. Which we are we talking  
18 about?

19 MR. ROSENBERG: If I may --

20 THE COURT: Sure.

21 MR. ROSENBERG: -- the specific  
22 question that Mr. Biersteker asked of the Doctor was  
23 what is your personal belief as to whether cigarette  
24 smoking causes cancer and there was never any  
25 question or answer given as to what was RJR's public  
-D. Townsend, Ph.D. - cross - Mr. Migliori- 2916

1 position on smoking and health.

2 THE COURT: No. But you see the  
3 problem is I remember two questions -- two answers,  
4 rather, that kept saying where -- and that's why I  
5 interrupted Mr. Biersteker twice yesterday to make  
6 sure that we didn't have this confusion. Which we  
7 are we talking about? Are we talking about we the  
8 people in R and D? Are we talking about RJR and  
9 myself? Are we talking about the marketing and RJR?  
10 Are we talking about the industry? And, in fact,  
11 when we even came over to side bar I said, Well, are  
12 we talking about the United States or are we talking  
13 about everything -- I didn't know the expanse of the  
14 industry and who was doing what so I think it's fair  
15 to clarify for that purpose but I'm going to tell  
16 you, your questions must be more precise. I've  
17 allowed him to expand his answers because your  
18 predicate questions are not precise for his  
19 testimony and he's correctly supplemented them so  
20 you understand why.

21 MR. MIGLIORI: I understand.

22 THE COURT: Very good.

23 (The following takes place in open  
24 Court:)

25 THE COURT: Thank you.

-D. Townsend, Ph.D. - cross - Mr. Migliori- 2917

1 MR. MIGLIORI: Thank you, Your Honor.  
2 BY MR. MIGLIORI:  
3 Q. You took -- yesterday you testified  
4 that it was your personal belief that smoking may  
5 cause cancer, lung cancer in some people, correct?  
6 A. That's essentially correct, right.  
7 Q. And you talked yesterday about the  
8 position of R.J. Reynolds, correct?  
9 A. In what sense?  
10 Q. In this area in terms of smoking and  
11 health.  
12 A. In the sense of what we --  
13 MR. ROSENBERG: Objection. Vague.  
14 THE COURT: Right. This is the  
15 provision I'm talking about. Rephrase.  
16 Q. Yesterday isn't it true that you  
17 spoke about the position of R.J. Reynolds on the  
18 issue of whether or not smoking causes lung cancer?  
19 A. I don't recall being specific on  
20 that. I do recall talking about what Reynolds has  
21 done because of the risks of smoking.  
22 Q. Okay. And personally you didn't  
23 believe back in time -- when -- first of all, when  
24 did you testify in the case of Rogers?  
25 A. Oh, I don't remember the exact date.  
-D. Townsend, Ph.D. - cross - Mr. Migliori- 2918  
1 I would say '95 or thereabouts.  
2 Q. Okay. And in 1995 or thereabouts  
3 isn't it true that you said that at that time that  
4 you didn't personally believe that it was  
5 scientifically proven that smoking causes lung  
6 cancer?  
7 MR. BIERSTEKER: Objection.  
8 THE COURT: No. That I'll allow.  
9 That was a personal -- that was personal, not the  
10 company.  
11 A. At that point my personal belief was  
12 that all the scientific data was not available to  
13 draw that conclusion. I did say in that -- in that  
14 testimony, however, that I didn't know whether  
15 cigarette smoking caused cancer.  
16 Q. And when did you testify in the Engle  
17 case?  
18 A. I don't remember the date.  
19 Q. Was it approximately March of 1999?  
20 A. Sounds reasonable.  
21 Q. Okay. Doctor, didn't you testify in  
22 the Engle case that you didn't personally believe  
23 that smoking causes lung cancer?  
24 A. It's hard for me to imagine I used  
25 those words because my belief is -- my belief was at  
-D. Townsend, Ph.D. - cross - Mr. Migliori- 2919  
1 that point that I didn't know for sure that  
2 cigarette smoking did cause cancer.  
3 What I've done since then is I've  
4 collected -- one of the first things I did in my new  
5 job was collect toxicologists and scientists within  
6 R and D and asked them that specific question and we  
7 went through data and I am now convinced of what I  
8 just said earlier which is cigarette smoking may  
9 cause cancer for some individuals.  
10 Q. So if I understand your last answer,

11 since March of 1999 you have changed your position  
12 personally on whether smoking causes lung cancer?  
13 A. In a sense, yes.  
14 Q. And that was based on information  
15 that you obtained in your new position as Director  
16 of research and development?  
17 A. And position -- and information and  
18 data from before that.  
19 Q. And that's information and data that  
20 you had at R.J. Reynolds Tobacco Company?  
21 A. From the scientific literature as  
22 well as from experiments that Reynolds has done but  
23 primarily from the bulk of the scientific  
24 literature.  
25 Q. As of March 1999 was that data at  
-D. Townsend, Ph.D. - cross - Mr. Migliori- 2920  
1 R.J. Reynolds Tobacco Company?  
2 A. I don't know. We'd have to go back  
3 and look at specifics. You're talking about  
4 something that's quite broad.  
5 Q. This --  
6 A. In a very simple way.  
7 Q. The data you now rely on and your  
8 current personal belief is data that was only  
9 gathered at R.J. Reynolds Tobacco since March of  
10 1999?  
11 A. No, I wouldn't say that at all.  
12 Q. So it was in existence in March of  
13 1999 at R.J. Reynolds?  
14 A. Let -- maybe this can help answer the  
15 question very directly.  
16 I think there's a lot of work in  
17 genetics that will ultimately lead to the answer  
18 definitively one way or the other that genetics  
19 research has been very instrumental in moving me  
20 along to where it's clear to me that I think for  
21 some individuals particularly cigarette smoking may  
22 cause cancer but the genetic research I think is --  
23 is one of the core pieces of this whole issue.  
24 MR. MIGLIORI: Gina, may I have  
25 demonstrative 015, please. This is the Frank  
-D. Townsend, Ph.D. - cross - Mr. Migliori- 2921  
1 Statement To Cigarette Smokers which is already in  
2 evidence, Your Honor. It's Exhibit number  
3 76050.3792.  
4 Q. Certainly, Doctor, you're familiar  
5 with this document?  
6 A. I've seen this before, yes.  
7 Q. And the quote that's been excerpted  
8 is, We accept an interest in people's health as a  
9 basic responsibility paramount to every other  
10 consideration in our business.  
11 Are you familiar with that  
12 representation?  
13 A. I'm familiar with that sentence.  
14 Q. And, in fact --  
15 MR. MIGLIORI: If you go to the  
16 bottom of the actual Frank Statement, Gina.  
17 Q. -- R.J. Reynolds and Philip Morris  
18 are both sponsors of this statement. Is that  
19 correct?  
20 A. That's what it says, yes.  
21 Q. And this was a statement made in over

22 300 newspapers throughout the country in 1954?  
23 A. I know it was 1954. I don't know how  
24 many newspapers it ran -- I don't know any of the  
25 other details.

-D. Townsend, Ph.D. - cross - Mr. Migliori- 2922

1 MR. MIGLIORI: May I have 016 or 016,  
2 please.  
3 Q. This is another excerpt and it says  
4 that, We believe that the products we make are not  
5 injurious to health.  
6 Doctor, first of all, did I read that  
7 correctly?  
8 A. You did.  
9 Q. And is it not true that the position  
10 of R.J. Reynolds Tobacco Company in 1954 was that it  
11 did not believe that products it made were injurious  
12 to health?  
13 A. What it said is that we believe the  
14 products we make are not injurious to health. The  
15 representatives of those companies may well have  
16 believed it. I -- I have no reason to doubt that.  
17 MR. MIGLIORI: I'm going to hand to  
18 Mr. Biersteker document number 10495.  
19 THE COURT: Can you wait before you  
20 publish it?  
21 (Pause.)  
22 MR. BIERSTEKER: Your Honor, I think --  
23 THE COURT: Mr. Biersteker, if you  
24 have an objection, tell me.  
25 MR. BIERSTEKER: Yes, I do, Your

-D. Townsend, Ph.D. - cross - Mr. Migliori- 2923

1 Honor, not to the document. To the line of  
2 questioning I think that's going to follow it.  
3 THE COURT: Well, then perhaps we  
4 should stop here for the morning break and talk  
5 about it. Okay.  
6 Folks, let's take the morning break.  
7 If you put your notebooks down. I'm going to give  
8 you 20 minutes. We'll have Al bring you back  
9 between 11 and 11:05, okay?  
10 (At this time the jury leaves the  
11 Courtroom at 10:37 a.m.)  
12 THE COURT: Doctor, you can demike.  
13 I'll see counsels at side bar with the reporter.  
14 (The following takes place at side  
15 bar:)  
16 THE COURT: We're looking at document  
17 number 10495 dated July 30th, 1957, RJR Tobacco  
18 Company letterhead to Paul M. Hahn, president,  
19 American Tobacco Company.  
20 Your objection, sir?  
21 MR. BIERSTEKER: What I anticipate  
22 what this document appears to be discussing is what  
23 was then known as the Tobacco Industry Research  
24 Committee which had a dual role. One role was to  
25 basically act as a public relations organization to

-D. Townsend, Ph.D. - cross - Mr. Migliori- 2924

1 make statements on behalf of the tobacco industry  
2 and I think we've gone -- I think that's well beyond  
3 proper cross-examination for this witness. He's not  
4 here for that purpose. I didn't ask him about  
5 public statements about that.  
6 To the extent that this relates to

7 research funded by the TIRC on the diseases that are  
8 caused by smoking, again, I think examination about  
9 research conducted by the TIRC or by the Council For  
10 Tobacco Research over time which was not product  
11 research but was fundamental disease research is  
12 inappropriate for this witness. That's not what  
13 he's here for.

14 MR. ROSENBERG: Yes. I will add my  
15 complete agreement with Mr. Biersteker that this  
16 goes into that whole issue of common knowledge,  
17 awareness that was not part of the direct nor opened  
18 by the direct.

19 MR. MIGLIORI: My only comment, Your  
20 Honor --

21 THE COURT: Sure. Absolutely.

22 MR. MIGLIORI: -- is to focus the  
23 Court -- it would only be the first two paragraphs  
24 that I publish.

25 MR. BIERSTEKER: I was wrong.

-D. Townsend, Ph.D. - cross - Mr. Migliori- 2925

1 THE COURT: Reading the paragraph Mr.  
2 Biersteker pointed me to --

3 MR. MIGLIORI: And as to the issue of  
4 common knowledge it's only to the extent that he in  
5 his elaborate answers has raised common knowledge on  
6 his own several times. It's this document and one  
7 other document which we might as well take up right  
8 now.

9 THE COURT: Can you get it to me?

10 MR. MIGLIORI: Sure, sure.

11 (Pause.)

12 MR. MIGLIORI: I misspoke. It's two  
13 documents but it's the same issue.

14 THE COURT: What's the document  
15 number?

16 MR. MIGLIORI: First one is 1409.  
17 This is now a 1972 -- this is a document that you  
18 ruled on an argument between Mr. Michie and Mr.  
19 Evans about its admissability and the portions that  
20 would be published. And again it's just common  
21 knowledge.

22 MR. BIERSTEKER: I think it makes my  
23 case.

24 THE COURT: They agreed to that.  
25 They agreed to these.

-D. Townsend, Ph.D. - cross - Mr. Migliori- 2926

1 MR. BIERSTEKER: Yes, but the  
2 question's not with him. Not with him. He's a  
3 design guy.

4 THE COURT: Well, you're right. He  
5 is a design guy but this is the only design guy I  
6 know that he knew Reader Digest had it.

7 MR. BIERSTEKER: He did say the  
8 specific constituents that were being identified by  
9 Reynolds were published at the same time in the lay  
10 press and in the public press. That's all he said.  
11 He doesn't talk about common knowledge at all on  
12 direct.

13 MR. MIGLIORI: Just this morning,  
14 Your Honor, he said in answer to a question before  
15 saying yes or no these risks were widely known --

16 THE COURT: By everyone.

17 MR. BIERSTEKER: That is in response



18 to -- those are whole --  
19 MR. MIGLIORI: He turned the question  
20 that had nothing to do with it --  
21 THE COURT: Don't talk at the same  
22 time, please, gentlemen.  
23 MR. MIGLIORI: He turned the question  
24 that had nothing to do with common knowledge into a  
25 gratuitous statement about common knowledge. It's  
-D. Townsend, Ph.D. - cross - Mr. Migliori- 2927  
1 just this document -- this document and one further  
2 document which is one sentence in 1979 --  
3 THE COURT: Which document number is  
4 that?  
5 MR. MIGLIORI: 20 -- 25028. It's not  
6 in evidence yet.  
7 THE COURT: And what is --  
8 MR. MIGLIORI: It's the containment  
9 controversy of the Tobacco Institute which is the  
10 public relations --  
11 MR. BIERSTEKER: Was this published?  
12 MR. MIGLIORI: This was published and  
13 this was a document that was actually part of a  
14 press release on January 10th, 1979 and the only  
15 statement I'm going to --  
16 THE COURT: Just tell me what the gist  
17 or the conclusion is.  
18 MR. MIGLIORI: Is the claim that  
19 cigarette smoking causes lung cancer has not been  
20 scientifically proven, 1979. Stop.  
21 THE COURT: Didn't he just say that  
22 twice?  
23 MR. BIERSTEKER: He did.  
24 MR. MIGLIORI: I just want to  
25 establish that throughout the time of Connie's  
-D. Townsend, Ph.D. - cross - Mr. Migliori- 2928  
1 smoking history that was the public position of R.J.  
2 Reynolds.  
3 THE COURT: Okay. But that's exactly  
4 why I told you at side bar that you must ask your  
5 questions was it his personal belief or was it that  
6 of RJR. That's why I told -- wait, wait.  
7 MR. MIGLIORI: No. I'm not -- I'm  
8 sorry, Your Honor.  
9 THE COURT: At some point I have to  
10 make a record, too, Mr. Migliori.  
11 MR. MIGLIORI: I'm sorry.  
12 THE COURT: That's all right.  
13 That's why Mr. Biersteker started to  
14 get up. I said no. Wait. Let's hear the full  
15 question. It was as to his personal belief. Mr.  
16 Biersteker sat down.  
17 Now, your issue is about in essence  
18 this is the trade association/research association,  
19 correct?  
20 MR. BIERSTEKER: Yes.  
21 THE COURT: Or communal research  
22 association.  
23 Your question about this would relate  
24 to him as R and D chief how?  
25 MR. MIGLIORI: It would only relate  
-D. Townsend, Ph.D. - cross - Mr. Migliori- 2929  
1 to his testimony that in his opinion being here  
2 representing himself as a senior executive of R.J.

3 Reynolds it was widely known going back into the  
4 '50s that smoking posed all of these -- all of these  
5 disease risks and it's three short statements to  
6 establish that if that were the case that was not  
7 what his company was representing.  
8 MR. BIERSTEKER: Look --  
9 THE COURT: Wait a minute. I'll just  
10 tell you when to look. Wait a second, sir.  
11 MR. BIERSTEKER: Sorry, Judge.  
12 THE COURT: Just relax.  
13 MR. BIERSTEKER: I get excited.  
14 MR. MIGLIORI: The red face test.  
15 THE COURT: Does he know we're from  
16 Perth Amboy to take this risk?  
17 MR. ROSENBERG: I'll take care of him  
18 back at the office.  
19 THE COURT: You better.  
20 MR. BIERSTEKER: Sorry again.  
21 THE COURT: I think you're over with  
22 that statement. Before you got the Frank Statement  
23 twice saying basically the same thing. I'm ruling.  
24 This is it. This is what's happening. That  
25 statement's out.  
-D. Townsend, Ph.D. - cross - Mr. Migliori- 2930  
1 I will allow you to use 10495. This  
2 is to specifically because yesterday he talked about --  
3 this is the problem we got into the dates. There  
4 were no dates and we came back in the afternoon and  
5 from 1950 or '40 to 2000.  
6 I will ask -- I will allow you to ask  
7 about the knowledge and the company's position  
8 regarding TIRC. No farther than that.  
9 MR. MIGLIORI: And the agreed --  
10 THE COURT: I know the document was  
11 agreed upon but I want to see what it says.  
12 Who is Panzer?  
13 MR. BIERSTEKER: He was a young  
14 person.  
15 MR. MIGLIORI: Who said?  
16 THE COURT: This is another --  
17 MR. BIERSTEKER: This is the guy who  
18 was full of himself. He was a young guy and he  
19 wrote this memo when he was at the Tobacco  
20 Institute.  
21 MR. MIGLIORI: This follows the  
22 stupid comment.  
23 MR. ROSENBERG: Dumb was the  
24 operative word.  
25 MR. BIERSTEKER: Not with him.  
-D. Townsend, Ph.D. - cross - Mr. Migliori- 2931  
1 THE COURT: And to whom --  
2 MR. BIERSTEKER: This is -- he wrote  
3 to a more senior guy at the Tobacco Institute.  
4 THE COURT: But I believe on this one  
5 that we had eliminated words here. I think we took  
6 out -- I think there were redactions.  
7 MR. BIERSTEKER: There were  
8 redactions, Your Honor.  
9 MR. MIGLIORI: I didn't get that one.  
10 I'll take out --  
11 THE COURT: I just remember all these  
12 details. No problem. One brings the special teams  
13 in to me. I should remember all this stuff, too.

14 MR. MIGLIORI: No. I apologize.  
15 THE COURT: Subject to the proper  
16 redactions I want it gone over with the defense what  
17 the redactions were before you ask him on that.  
18 But again, Don, you've got to lay the  
19 proper predicate question first, okay?  
20 MR. MIGLIORI: That's fine. I will.  
21 Thank you.  
22 (Recess taken at 10:50 a.m.)  
23 (Court in session at 11:11 a.m.)  
24 THE COURT: Thank you. The jury's  
25 right behind me.  
-D. Townsend, Ph.D. - cross - Mr. Migliori- 2932  
1 (At this time the jury enters the  
2 Courtroom at 11:11 a.m.)  
3 THE COURT: All right. Thank you  
4 very much. All be seated. Let's continue.  
5 MR. MIGLIORI: Thank you, Your Honor.  
6 Gina, may we have the document that  
7 we were discussing before the break? It's 10495.  
8 BY MR. MIGLIORI:  
9 Q. Dr. Townsend, this is a document on  
10 R.J. Reynolds Tobacco Company letterhead, is it not?  
11 A. It appears to be.  
12 Q. Okay. It's dated July 30th, 1957 and  
13 it's on the letterhead of an E.A. Darr, D-a-r-r,  
14 president. Are you familiar with that person?  
15 A. No, I'm not familiar with that person  
16 but that's what the document says.  
17 Q. Okay.  
18 THE COURT: The Doctor's not on.  
19 Doctor, just try to keep your voice up. We'll fix  
20 it in a second but just --  
21 THE WITNESS: Keep my voice up?  
22 THE COURT: Yes. Because the  
23 microphone needs adjusting, okay?  
24 THE WITNESS: I will.  
25 THE COURT: Thanks so much.  
-D. Townsend, Ph.D. - cross - Mr. Migliori- 2933  
1 Q. The first three paragraphs read, You  
2 took a bold and courageous action in December 1953  
3 when you called for a meeting of manufacturers and  
4 other industry groups to discuss ways and means of  
5 presenting a united front against the claims that  
6 were being made that the cigarette -- that cigarette  
7 smoking causes lung cancer. The formation of the  
8 Tobacco Industry Research Committee was the result.  
9 There is absolutely no question in my  
10 mind that if the committee had not been formed the  
11 cigarette industry by now would have been in a  
12 deplorable condition --  
13 MR. MIGLIORI: Thanks, Charles.  
14 Q. -- instead, a very fine job has been  
15 done in counteracting unverified, unjustified and  
16 unsubstantiated claims of the anticigarette  
17 fanatics. In other words, the TIRC has been a  
18 successful, defensive operation. It now appears,  
19 however, that the tobacco industry should go on the  
20 offensive in bringing the truth about cigarette  
21 smoking to the public.  
22 Dr. Townsend, was it the position,  
23 the corporate position of R.J. Reynolds Tobacco  
24 Company in 1957 that smoking has not been proven to

25 cause lung cancer?  
-D. Townsend, Ph.D. - cross - Mr. Migliori- 2934

1 A. I believe in -- in similar words  
2 that's probably correct; that many people at  
3 Reynolds probably believed that the scientific  
4 evidence wasn't -- wasn't complete to draw that  
5 conclusion.

6 Q. Dr. Townsend, in 1957 was it the  
7 position of R.J. Reynolds that the tobacco companies  
8 should present a united front against the claims  
9 that were being made that cigarette smoking causes  
10 lung cancer?

11 A. I don't know. I can't say that with  
12 certainty one way or the other.

13 Q. Thank you.

14 MR. MIGLIORI: Gina, the next  
15 document is 1409.

16 THE COURT: Can I see it before it's  
17 published?

18 MR. MIGLIORI: I'm sorry.

19 THE COURT: I just want to see the  
20 document before it's published.

21 Okay. Very good. Just checking the  
22 redaction. Go ahead. Publish.

23 MR. MIGLIORI: Thank you, Your Honor.  
24 Gina, can you blow up the highlighted  
25 area, please? The entire -- that's fine.

-D. Townsend, Ph.D. - cross - Mr. Migliori- 2935

1 Q. This is document number 1409. It's  
2 dated May 1, 1972.

3 Dr. Townsend, do you know who Horace  
4 Kornegay is?

5 A. He was -- he was an employee of The  
6 Tobacco Institute I believe.

7 Q. Isn't it true that Mr. Kornegay was  
8 actually the president of The Tobacco Institute?

9 A. For some time, yes.

10 Q. And the Tobacco Institute is it  
11 accurate to say was the public relations arm of the  
12 tobacco industry?

13 A. Well, it was a little more  
14 complicated than that. The Tobacco Institute did  
15 provide some public relations. Each individual  
16 company had their own public relations as well.

17 Q. And you recognize the name Fred  
18 Panzer?

19 A. No, I don't. Don't know Fred Panzer.

20 Q. Doctor, reading the first paragraph  
21 it says, It is my strong belief that we now have an  
22 opportunity to take the initiative in the cigarette  
23 controversy and start to turn it around. For nearly  
24 20 years this industry has employed a single  
25 strategy to defend itself on major fronts public

-D. Townsend, Ph.D. - cross - Mr. Migliori- 2936

1 opinion. While the strategy was brilliantly  
2 conceived and executed over the years helping us win  
3 important battles it is only fair to say that it is  
4 not nor was it intended to be a vehicle for victory.  
5 On the contrary, it has always been a holding  
6 strategy consisting of creating doubt about the  
7 health charge without actually denying it.

8 Dr. Townsend, was it the position of  
9 R.J. Reynolds Tobacco Company in 1972 that the --

10 through the Tobacco Institute it was important to  
11 create doubt about the health charge that smoking  
12 causes disease without actually denying it?

13 A. I've never seen any direct evidence  
14 of that. I've never seen any indirect evidence  
15 really of that in my career at Reynolds.

16 Q. And --

17 A. In my review of previous documents  
18 that clearly convinces me that that actually was a  
19 strategy.

20 Q. So you cannot say one way or the  
21 another that that was the actual strategy?

22 A. I've never seen that evidence so I  
23 think that's a fair conclusion.

24 Q. And in 1972 both Philip Morris and  
25 R.J. Reynolds Tobacco Company were members of the  
-D. Townsend, Ph.D. - cross - Mr. Migliori- 2937  
1 Tobacco Institute. Isn't that correct?

2 A. Yes.

3 Q. You indicated that Dr. Alan Rodgman  
4 was your boss at one time?

5 A. For some time, yes.

6 Q. And this is a document that's already  
7 in evidence. It's document 26462. And it's dated  
8 February 12, 1964, author, Alan Rodgman, chemical  
9 research, and it's entitled Analysis of Cigarette  
10 Smoke Condensate, 35, A Summary of an Eight -- Of An  
11 Eight-Year Study.

12 Are you familiar with this document?

13 A. I've seen this before. You know, I  
14 haven't read it recently.

15 Q. Okay. This isn't a document you  
16 spoke about yesterday, is it?

17 A. A portion of it I believe, yes. I  
18 mean, it's intertwined, yes.

19 Q. Okay.

20 MR. MIGLIORI: Gina, will you please  
21 turn to Page 62 of that document and specifically  
22 paragraph number 7.

23 Q. It reads, None of the chemical data  
24 acquired in our studies or in the studies conducted  
25 elsewhere is inconsistent with the reported  
-D. Townsend, Ph.D. - cross - Mr. Migliori- 2938  
1 biological, pathological or statistical data  
2 indicating -- I'm sorry. I did this last time --  
3 data indicting cigarette smoke as a health hazard.  
4 Doctor, was it consistent with your  
5 view of the historical documents of R.J. Reynolds  
6 Tobacco Company in the eight years preceding 1964  
7 that none of the scientific data was inconsistent  
8 with the reported biological, pathological or  
9 statistical data indicting cigarette smoke as a  
10 health hazard?

11 A. Well, I mean, that's a broad  
12 statement. Let me say that I think certainly the  
13 bulk of the scientific data is consistent with  
14 cigarettes being a clear risk for a number of  
15 diseases. I think there are some experiments and --  
16 and some data that are questionable, however, but  
17 the bulk of the data I think is consistent.

18 Q. And Dr. Rodgman was your superior  
19 when you got to R.J. Reynolds Tobacco in 1977,  
20 correct?

21 A. Well, he wasn't my immediate boss at  
22 that time, but, yes, I reported to him through  
23 several people.

24 Q. The next document is a document  
25 that's already in evidence. It's number 14333.

-D. Townsend, Ph.D. - cross - Mr. Migliori- 2939

1 This is again by Mr. or Dr. Alan Rodgman, correct?

2 A. Yes.

3 Q. It's the same gentleman we just spoke  
4 of?

5 A. Yes.

6 Q. And this one -- sorry -- is dated and  
7 it's not very clear. 1962 on top.

8 A. Yes, yes. And I believe this is a  
9 draft actually.

10 Q. Okay. And the title is actually  
11 inverted. It should read, A Critical and Objective  
12 Appraisal of the Smoking and Health Problem.

13 Did I read that properly?

14 A. Yes.

15 Q. And turning to Page 7 of this  
16 document it reads, The Evidence To Date. Obviously  
17 the amount of evidence accumulated to indict  
18 cigarette smoke as a health hazard is overwhelming.  
19 The evidence challenging such an indictment is  
20 scant.

21 Is that consistent with the answer  
22 that you just gave me about the state of the  
23 scientific knowledge at that time?

24 THE COURT: Just a minute.

25 MR. BIERSTEKER: Your Honor, could I

-D. Townsend, Ph.D. - cross - Mr. Migliori- 2940

1 invoke the rule of completeness and have the  
2 remainder of that paragraph read?

3 THE COURT: I just --

4 MR. BIERSTEKER: Can I invoke the  
5 rule of completeness and have the remainder of that  
6 paragraph read?

7 THE COURT: Yes.

8 MR. BIERSTEKER: Thank you.

9 MR. MIGLIORI: I'll read on.

10 Q. However, the evidence from  
11 epidemiological, pathological, biological and  
12 chemical studies supporting the proposition that  
13 lung cancer is caused by or associated with  
14 cigarette smoke --

15 THE COURT: Wait. She's typing this.

16 MR. MIGLIORI: I'm sorry, Your Honor.

17 THE COURT: Okay.

18 Q. -- is parallel by similar evidence  
19 supporting the proposition that lung cancer is  
20 caused by or associated with air pollutants. In  
21 some instances the evidence seems to be stronger in  
22 support of cigarette smoke as a causative or  
23 associated factor. In other instances the evidence  
24 seems to be stronger in support of air pollution as  
25 a causative or associated factor.

-D. Townsend, Ph.D. - cross - Mr. Migliori- 2941

1 Did I read that properly?

2 A. I believe -- I believe you did, yes.

3 MR. MIGLIORI: Gina, can you turn to  
4 Page I believe it's 14.

5 Q. Under Recommendations. After

6 consideration of the evidence available on the  
7 cigarette smoke health problem and the company's  
8 obligation to its customers, stockholders and  
9 employees it is recommended that the facilities,  
10 animals and personnel (where necessary) be acquired  
11 to study biological -- to study biologically  
12 cigarette smoke, tobacco, tobacco and additives.  
13 Did I read that properly?  
14 A. I believe you did.  
15 Q. And as of 1962 was that the  
16 recommendation of R.J. Reynolds to explore those  
17 areas?  
18 A. That was certainly Dr. Rodgman's  
19 recommendation to explore those areas and it did  
20 occur afterwards.  
21 Q. Doctor, this is document 75 -- I'm  
22 sorry. I do not -- you spoke a little bit yesterday  
23 about nicotine, correct?  
24 A. Some, yes.  
25 Q. Is nicotine a carcinogen?  
-D. Townsend, Ph.D. - cross - Mr. Migliori- 2942  
1 A. No, I don't believe it is. I believe  
2 all the evidence suggests that it isn't.  
3 Q. Does nicotine cause lung cancer?  
4 A. All the evidence suggests that it  
5 probably does not.  
6 MR. MIGLIORI: Gina, this is 9580.  
7 And this is a document that's already  
8 in evidence, Your Honor. It's dated September 19th,  
9 1969.  
10 Q. Dr. Townsend, this is a document that  
11 was shown to you by Mr. Biersteker yesterday. Do  
12 you recall that?  
13 A. Yes.  
14 MR. MIGLIORI: And can you turn to --  
15 17. Page 17. Thank you. Can you blow that up?  
16 Q. Mr. Biersteker asked you a question  
17 about the bottom cigarette yesterday. I want to ask  
18 you a question about the top design.  
19 Doctor, consistent with -- strike  
20 that.  
21 In that representation tobacco is  
22 wrapped around paper, correct?  
23 A. Well, my take from this diagram is  
24 that the right-hand portion is tobacco wrapped in  
25 paper.  
-D. Townsend, Ph.D. - cross - Mr. Migliori- 2943  
1 Q. By -- okay. By your definition that  
2 you gave us this morning either through the Congress  
3 or the Bureau of Alcohol, Tobacco and Firearms does  
4 that by definition or does that meet the definition  
5 of a cigarette?  
6 A. It seems to me that it would meet  
7 Congress's definition.  
8 Q. Thank you.  
9 I just have two short areas and we're  
10 done.  
11 You mentioned the tobacco working  
12 group yesterday, correct?  
13 A. Sure.  
14 Q. And that was something that you spoke  
15 about in relationship to a Dr. Gio Gori, correct?  
16 A. Right.

17 Q. And that was a working group that was  
18 disbanded in the late 1970s, correct?  
19 A. That's right.  
20 Q. And that was a working group that  
21 never produced a design for a safer cigarette,  
22 correct?  
23 A. No. I think that's an  
24 oversimplification.  
25 What the tobacco working group did  
-D. Townsend, Ph.D. - cross - Mr. Migliori- 2944  
1 was study many, many cigarette design variables.  
2 They identified some that did reduce biology and  
3 reduce chemistry.  
4 What I said in my testimony was they  
5 did identify that many of those general reduction  
6 techniques that were -- that were actually developed  
7 by the industry and placed into commercial products  
8 were in the right direction.  
9 What I -- what I did say also was  
10 that the tobacco working group itself or any other  
11 group outside the tobacco industry didn't come up  
12 with a better alternative design.  
13 Q. Let me try it again, Doctor.  
14 Isn't it true that the tobacco  
15 working group did not result in or the efforts of  
16 the tobacco working group did not result in a  
17 recommended design for a safer cigarette?  
18 A. That is true and it's because the  
19 tobacco working group was terminated by the  
20 government before it finished its work.  
21 Q. And isn't it true, Doctor, that the  
22 head of the tobacco working group, Dr. Gio Gori,  
23 when he was terminated with the government went to  
24 work for the tobacco industry?  
25 A. Dr. Gori's had a number of jobs in  
-D. Townsend, Ph.D. - cross - Mr. Migliori- 2945  
1 between. He -- he presently is consulting with one  
2 of my competitors. Dr. Gori did lose his job with  
3 National Cancer Institute as a result of the tobacco  
4 working group.  
5 Q. And finally, this is a defense  
6 exhibit. It's marked AS 000546 which is in  
7 evidence.  
8 This is the list of ingredients that  
9 you showed the jury of R.J. Reynolds Tobacco Company  
10 and it's dated 1994, correct?  
11 A. That's right. This is an expert  
12 panel review of cigarette ingredients.  
13 Q. Okay.  
14 MR. MIGLIORI: Do you have Page 2  
15 there? Do you have Page 2 in there? Okay. Can I  
16 have the ELMO, Charles? Just very briefly.  
17 Q. This is the very first page of that  
18 document, is that not true, Dr. Townsend?  
19 A. It appears to be, yes.  
20 Q. And it reads in the highlighted  
21 portion, Each RJR brand contains some but not all of  
22 these ingredients. For competitive reasons we  
23 cannot identify which ingredients are in a brand.  
24 Did I read that correctly?  
25 A. Yes.  
-D. Townsend, Ph.D. - cross - Mr. Migliori- 2946  
1 Q. And has it been the position of R.J.



2 Reynolds Tobacco Company that it is will not give  
3 the government a list of ingredients of any given  
4 cigarette brand for competitive reasons?  
5 A. That -- that's been our historical  
6 position because these additives and ingredients are  
7 very, very important trade secrets. They help  
8 create the taste differences, the taste signatures.  
9 This list and this evaluation was a  
10 composite of all of the -- all of the ingredients  
11 used by the industry.  
12 I will add that since -- in the last  
13 several years we have given brand by brand additives  
14 lists and disclosures to states that have required  
15 that.  
16 Q. That's right. Now, you'd be  
17 referring to the State of Massachusetts?  
18 A. Massachusetts and Texas.  
19 Q. And that happened you said in the  
20 past couple of years?  
21 A. Yes.  
22 Q. That never happened from 1951 to  
23 1975, did it?  
24 A. Brand by brand disclosure?  
25 Q. That's right.  
-D. Townsend, Ph.D. - cross - Mr. Migliori- 2947  
1 A. No.  
2 Q. And it never happened between 1951  
3 and 1975 that all of the ingredients that were in  
4 Camel cigarettes were listed on the Camel cigarette  
5 package, correct?  
6 A. No. That's a true statement.  
7 Q. And it's true that when -- from 1951  
8 to 1975 those ingredients that were actually in the  
9 Camel cigarette at the time were never tested for  
10 their interaction in animal studies, correct?  
11 A. There have been tests that date way  
12 back. I think cigarette designers, flavorists and  
13 the toxicologists have looked at the additives. One  
14 of the standards has been use -- to use only grass  
15 materials where at all possible and conduct  
16 toxicological tests where at all possible or where  
17 necessary.  
18 Q. But no -- no consumer of an R.J.  
19 Reynolds Tobacco product including Camel cigarettes  
20 knew between 1951 and 1975 what was in any given  
21 brand of cigarette, correct?  
22 A. There was not public disclosure of  
23 brand by brand additives and ingredients.  
24 MR. MIGLIORI: Page 23.  
25 Q. I was reviewing a list of ingredients  
-D. Townsend, Ph.D. - cross - Mr. Migliori- 2948  
1 referenced --  
2 MR. MIGLIORI: Page 23. I'm sorry.  
3 Q. Is it true that urea may be one of  
4 the ingredients in any given RJR brand of tobacco  
5 product?  
6 A. Over what time period?  
7 Q. 1951 to 1975.  
8 A. I don't believe urea was used in RJR  
9 products over that particular time period.  
10 Q. Is urea currently used in RJR  
11 Reynolds' products?  
12 A. Several but not most.

13 MR. MIGLIORI: That's all I have,  
14 Your Honor.  
15 THE COURT: Thank you very much.  
16 Redirect.  
17 MR. BIERSTEKER: Thank you.  
18 THE COURT: Yes.  
19 MR. BIERSTEKER: Thank you, Your  
20 Honor.  
21 Good morning, ladies and gentlemen.  
22 THE JURY: Good morning.  
23 REDIRECT EXAMINATION BY MR. BIERSTEKER:  
24 Q. Dr. Townsend, just a few quick  
25 questions.  
-D. Townsend, Ph.D. - redirect - Mr. Bierstek2949  
1 Mr. Migliori asked you about brand by  
2 brand disclosure of ingredients.  
3 Do you know who Leffingwell  
4 (phonetic) was?  
5 A. Yes. Jack Leffingwell was a  
6 scientist at R.J. Reynolds specialized in flavors --  
7 he was essentially a flavorist.  
8 Q. And did he ever publish a book  
9 related to additives?  
10 A. Yes.  
11 Q. Tell the jury, please, about that  
12 book and when it was published.  
13 A. I believe the -- I believe that book  
14 of Leffingwell's was published in 1972 or  
15 thereabouts. '72, '73. It was a comprehensive list  
16 of additives and ingredients used by the tobacco  
17 industry. It was published, has been widely  
18 referenced throughout the scientific community. I  
19 think there even have been a few pickups from the  
20 popular press out of it.  
21 Q. And yesterday when I was examining  
22 you you talked about the list of ingredients that  
23 Reynolds and its competitors including Philip Morris  
24 submit to the Department of Health, Education -- no.  
25 Excuse me -- Health and Human Services and have done  
-D. Townsend, Ph.D. - redirect - Mr. Bierstek2950  
1 so for the last 16 years. Do you remember that?  
2 A. I do.  
3 Q. Okay. For what purpose are -- is  
4 that list of ingredients supplied to the government?  
5 What does the government do with that list?  
6 A. When -- when we provide the list to  
7 HHS, HHS is required by Congress to review that list  
8 and identify any concerns and report on any concerns  
9 of any of the compounds on that list.  
10 Q. And over the course of the last 16 or  
11 17 years have there been any reports of concerns  
12 about the additives being used in cigarettes?  
13 A. No. There have been none.  
14 Q. Dr. Townsend, during the course of  
15 the cross-examination you were shown three documents  
16 that you said were inconsistent with your view of  
17 how research and development proceeded at Reynolds,  
18 and just for the record it was Exhibit 37350, an  
19 unknown author. It was Exhibit 43459, also an  
20 unknown author. And Exhibit 43063 which you  
21 probably don't remember from the number but I do  
22 believe that Mr. Migliori showed you the signature  
23 by Frank Colby. Do you remember that?

24 A. Yes.  
25 Q. Okay. Did Dr. Colby have  
-D. Townsend, Ph.D. - redirect - Mr. Bierstek2951  
1 responsibilities for designing and testing  
2 cigarettes at Reynolds?  
3 A. No, he did not. He did not have any  
4 responsibilities for product development, cigarette  
5 design or cigarette testing.  
6 Q. Do you know what his responsibilities  
7 were?  
8 A. Well, he was primarily -- well, one  
9 of his functions was the chief librarian. He was  
10 the librarian for quite some time. He also  
11 accumulated information from the scientific  
12 literature about smoking and health, talked with  
13 other scientists about it.  
14 Q. However Dr. Colby or these unknown  
15 authors might have characterized the work that  
16 Reynolds did over the years what did you tell the  
17 jury about yesterday?  
18 MR. MIGLIORI: Objection, Your Honor.  
19 I think it's leading and I think it's vague.  
20 THE COURT: Could you just restate  
21 that, please?  
22 Q. Dr. Townsend, in your testimony  
23 yesterday did you describe the work that Reynolds  
24 actually did over the course of the last 40 or 50  
25 years with respect to attempts to modify the design  
-D. Townsend, Ph.D. - redirect - Mr. Bierstek2952  
1 of cigarettes?  
2 A. Yes, I did, and those attempts  
3 clearly went back to the very early '50s. We talked  
4 about a lot of specifics including benzpyrene,  
5 trying to remove benzpyrene and identify it which  
6 was in the early '50s, the other attempts at  
7 selective reduction as well as the attempts at  
8 general reduction which began in the early '50s.  
9 All of those attempts I regard  
10 clearly as addressing the smoking and health issue  
11 and trying to reduce the risks of smoking. There's  
12 no question about it.  
13 Q. Doctor, was there a shift in the kind  
14 of cigarettes that smokers smoked in this country  
15 that began in the 1950s, mid-1950s?  
16 MR. MIGLIORI: Objection, Your Honor.  
17 I think it's beyond the scope of cross.  
18 THE COURT: This relates to the  
19 diagrams?  
20 MR. BIERSTEKER: No, Your Honor, it  
21 does not.  
22 THE COURT: Too bad. That would have  
23 been good.  
24 Then I'm going to sustain that one.  
25 MR. BIERSTEKER: All right.  
-D. Townsend, Ph.D. - redirect - Mr. Bierstek2953  
1 Q. Dr. Townsend, you were asked about  
2 the Premier product. How do Premier compare to  
3 conventional tobacco-burning cigarettes in the  
4 battery of chemical and biological tests that were  
5 conducted with it?  
6 A. Comparing Premier to a  
7 tobacco-burning cigarette, Premier had major  
8 reduction -- showed major reductions in all of the

9 biology -- biology and almost all of the chemistry  
10 that we conducted.

11 The biology included mouse skin  
12 painting where we saw almost no mouse skin painting  
13 activity compared to a tobacco-burning cigarette.

14 We conducted studies with humans  
15 measuring mutagenicity in body fluids and we found  
16 in a switching study that there were major  
17 reductions, almost no mutagenicity in the body fluid  
18 when a smoker smokes Premier compared to when a  
19 smoker smokes a tobacco-burning cigarette.

20 Q. And, Doctor, what is mutagenicity?

21 A. It's one particular biological test.  
22 It measures -- it measures mutations of genetic  
23 material and many things can cause that including  
24 particular foods as well as smoking. I mean,  
25 smoking will increase the mutagenicity of -- of a

-D. Townsend, Ph.D. - redirect - Mr. Bierstek2954

1 person's urine and they're exposed to more mutagens  
2 or compounds that can cause those mutations when  
3 they smoke. Also if they eat a certain type of  
4 diet, a high fat diet will further accentuate it  
5 but, you know, that's -- that's not really the  
6 point. A lot of things affect it but the biological  
7 tests showed major reductions, 90 percent or greater  
8 reductions in these types of measures not only with  
9 animals but with humans.

10 Q. You were asked by Mr. Migliori  
11 whether or not Reynolds had ever sold a truly zero  
12 tar cigarette. Do you remember that?

13 A. Yes. That was repeatedly.

14 Q. Why hasn't Reynolds sold a truly zero  
15 tar cigarette?

16 A. Because if a cigarette has zero tar  
17 it is not consumer acceptable because, frankly, the  
18 tar is -- is in large part -- the taste is in large  
19 part in the tar and what we tried to do in both  
20 Premier and Eclipse was change the nature of the tar  
21 chemically to reduce the biological activity and  
22 thereby reduce the risks of smoking that product but  
23 there had to be some tar there that could carry some  
24 flavor, that taste; otherwise, it's not consumer  
25 acceptable.

-D. Townsend, Ph.D. - redirect - Mr. Bierstek2955

1 Q. Do you know whether or not anybody  
2 any place in the world up through and including  
3 today has ever marketed a zero tar cigarette?

4 A. I'm not aware of a zero tar cigarette  
5 anywhere at any time.

6 Q. Doctor, are you familiar with Philip  
7 Morris's Cambridge product?

8 A. Yes.

9 Q. What was Cambridge?

10 A. Cambridge was a lowest category  
11 product, one of the ultra low category brands and I  
12 believe Cambridge was graded at about 1 milligram  
13 FTC tar as measured by the FTC method.

14 Q. During Mr. Migliori's  
15 cross-examination what feasible alternative design  
16 were you asked about that posed less risk to the  
17 health of consumers than the cigarettes that  
18 Reynolds and Philip Morris actually marketed during  
19 the period 1959 to 1974 or any other time period?

20 A. Well, he didn't really ask me about  
21 an alternative design that was feasible and better  
22 than what was on the market and developed by the  
23 industry.

24 MR. BIERSTEKER: Thank you very much,  
25 Doctor. I have nothing further.

-D. Townsend, Ph.D. - recross - Mr. Migliori-2956

1 THE COURT: Thank you.

2 MR. MIGLIORI: Your Honor, I just  
3 need to find an exhibit number.

4 THE COURT: Sure.

5 MR. MIGLIORI: I just have one  
6 question.

7 (Pause.)

8 MR. MIGLIORI: Thank you, Your Honor.

9 THE COURT: Okay.

10 RECROSS-EXAMINATION BY MR. MIGLIORI:

11 Q. I just have one final question,  
12 Doctor.

13 Are you familiar with -- and I'll --  
14 let me identify it first.

15 It's Exhibit number -- defense  
16 Exhibit number PMML 0297.

17 Are you familiar with Monograph 7,  
18 the FTC cigarette test method for determining tar,  
19 nicotine and carbon monoxide yields of U.S.  
20 cigarettes?

21 A. I'm familiar with that monograph.  
22 It's been awhile since I've read it, however.

23 Q. In fact, Doctor, were you not a  
24 participant in the -- in the conference from which  
25 this was borne?

-D. Townsend, Ph.D. - recross - Mr. Migliori-2957

1 A. I was invited to participate, yes, by  
2 the National Cancer Institute as an expert in  
3 cigarette design and actually to make a presentation  
4 and engage in discussions.

5 MR. MIGLIORI: Charles. Charles, may  
6 I have the ELMO, please?

7 Q. And you did, in fact, participate and  
8 give your thoughts on certain issues, correct?

9 A. Yes.

10 Q. Do you know who Harold Freeman was?

11 A. Harold Freeman -- I recall the man.  
12 I recall the name. I don't know him well.

13 Q. At the time that this monograph was  
14 put together was Mr. -- Dr. Freeman the Chairman and  
15 president of the cancer panel?

16 A. Of this particular panel he was -- he  
17 was Chairman.

18 Q. I'm going to direct your attention to  
19 Chapter 13, Page 191.

20 MR. MIGLIORI: And I apologize to the  
21 jury. In order to keep the book here I have to  
22 stand here while I ask this question. I apologize  
23 to the Court as well.

24 THE COURT: That's all right.

25 Q. The question was asked of you from

-D. Townsend, Ph.D. - recross - Mr. Migliori-2958

1 Dr. Freeman, quote, Dr. Townsend, I just want to ask  
2 you one question and it may be a little naive.  
3 Several times you have mentioned the value of tar in  
4 cigarettes because you say it's associated with

5 taste. Even conceding that although it seems to be  
6 a thing that is killing people but what about  
7 nicotine? What is it -- what is -- I'm sorry --  
8 what it is (sic) the value of nicotine in cigarettes  
9 and why could it not be dramatically reduced?

10 Dr. Townsend, quote, Nicotine, of  
11 course, is part of a smoking sensation. It does  
12 provide a sensation to the smoker. I think one of  
13 our competitors found that tobacco that had been  
14 treated to remove all the nicotine was not  
15 successful in the marketplace. More than that, just  
16 as I cannot look into the components of tar and say  
17 this is a very important tasteful and flavorful  
18 compound, you know, I am not equipped as chemist to  
19 say that nicotine is an important compound for this  
20 aspect of taste characteristics.

21 Was that the statement you made at  
22 that conference?

23 A. That's what it says here.

24 MR. MIGLIORI: That's all I have,  
25 Your Honor.

-D. Townsend, Ph.D. - recross - Mr. Migliori-2959

1 THE COURT: Okay. Thank you very  
2 much.

3 THE WITNESS: Thank you, Your Honor.

4 THE COURT: You may step down.

5 (Pause.)

6 THE COURT: Folks, let me have five  
7 minutes to get the next witness in so I'll ask Kenny  
8 to bring you into the jury room and we'll bring you  
9 back as soon as the next witness arrives, okay?

10 (At this time the jury leaves the  
11 Courtroom at 11:46 a.m.)

12 THE COURT: Okay. Thanks. Need five  
13 minutes?

14 MR. ROSENBERG: Yes.

15 MR. MIGLIORI: Thank you, Your Honor.

16 (Recess taken at 11:46 a.m.)

17 (Court in session at 11:54 a.m.)

18 THE COURT: Have a seat, folks. Just  
19 wait for the batteries to change.

20 (Pause.)

21 (At this time the jury enters the  
22 Courtroom at 11:57 a.m.)

23 THE COURT: All right. Thank you  
24 very much. Please be seated.

25 Next witness, please.

-D. Townsend, Ph.D. - recross - Mr. Migliori-2960

1 MR. ROSENBERG: Thank you, Your  
2 Honor.

3 And good morning, ladies and  
4 gentlemen of the jury.

5 THE JURY: Good morning.

6 MR. ROSENBERG: And I'd like to call  
7 to the stand Dr. Jerry Whidby.

8 THE COURT: Dr. Whidby, come on up,  
9 please. Swear the witness.

10 J E R R Y F R A N K W H I D B Y, Ph.D., having  
11 been duly sworn, testifies as follows:

12 THE COURT: Have a seat, sir. We  
13 have a portable microphone if you want to clip that  
14 onto your tie, please.

15 THE WITNESS: Okay.

16 THE COURT: It's on?  
17 THE WITNESS: Is that working?  
18 Sounds like it.  
19 THE COURT: That's good.  
20 Everything okay, Miss Manning?  
21 THE WITNESS: Can you hear me?  
22 THE COURT: Okay.  
23 MR. ROSENBERG: Thank you.  
24 DIRECT EXAMINATION BY MR. ROSENBERG:  
25 Q. Good morning, Dr. Whidby.  
-J. Whidby, Ph.D. - direct - Mr. Rosenberg- 2961  
1 A. Good morning.  
2 Q. Dr. Whidby, will you please introduce  
3 yourself to the jury.  
4 A. As I said before, my name is Jerry  
5 Frank Whidby. I'm from Urbanna, Virginia, which is  
6 a small town about 65 miles east of Richmond,  
7 Virginia.  
8 Q. Do you have a family?  
9 A. Yes, sir, I do.  
10 Q. Wife?  
11 A. Wife and three daughters and four  
12 grandchildren, three grandsons, one granddaughter,  
13 and my youngest daughter's pregnant and hopefully  
14 we'll have another one in August.  
15 Q. Dr. Whidby, have you ever worked for  
16 Philip Morris?  
17 A. Yes, sir, I have.  
18 Q. When did you work for Philip Morris?  
19 A. I started working for Philip Morris  
20 in 1972, retired in '98 and consult for Philip  
21 Morris now.  
22 Q. Why did you retire from Philip  
23 Morris?  
24 A. Philip Morris offered a package,  
25 retirement package that was very attractive to me  
-J. Whidby, Ph.D. - direct - Mr. Rosenberg- 2962  
1 and there were other things I wanted to do so I  
2 retired and moved to or moved the house I was in  
3 before I retired but lived full time and enjoy life.  
4 Q. How are you enjoying retirement?  
5 A. I'd recommend it to anybody.  
6 Q. You mentioned that you were doing  
7 some consulting for Philip Morris. What kind of  
8 consulting are you doing now?  
9 A. I do -- I consult infrequently with  
10 Philip Morris. Something on the order of maybe a  
11 day a week or a day and a half a week or less in two  
12 general areas; the technical area that I was working  
13 on before I left Philip Morris and in legal  
14 testimony, that type of thing, government/legal  
15 issues.  
16 Q. You get compensated for your  
17 consulting work for Philip Morris?  
18 A. Yes, I do.  
19 Q. And when you talked about the  
20 technical areas that you worked for when you were  
21 with Philip Morris that you're still consulting in  
22 which areas are those?  
23 A. Cigarette design, making cigarettes  
24 that are -- have reduced harmful constituents in  
25 them --  
-J. Whidby, Ph.D. - direct - Mr. Rosenberg- 2963

1 THE COURT: Reduced harmful  
2 constituents. I'm sorry.  
3 THE WITNESS: I'm sorry.  
4 Q. I'm going to ask you, Doctor, just to  
5 slow down just a bit.  
6 A. Yes, sir. I'll do my best. If I  
7 don't slow me down again, please.  
8 Q. I will.  
9 A. I apologize. I'm from the South but  
10 sometimes my words get long and stuck together.  
11 Q. Understood. Go ahead, Doctor.  
12 A. The other -- the other area rather  
13 than cigarette design is I work on a program we call  
14 ignition propensity. We're trying to reduce the  
15 likelihood that a cigarette when dropped on  
16 upholstered furniture would cause a fire.  
17 Q. And where is the work on ignition  
18 propensity done?  
19 A. In addition to our research  
20 facilities in Richmond, Virginia, all of the paper  
21 that we make is made in Spotswood, New Jersey, right  
22 down the road, and what we do is we modify --  
23 working with them, modified their paper-making  
24 machines to really to add like speed bumps on the  
25 paper to cause the burning of the cigarette to slow  
-J. Whidby, Ph.D. - direct - Mr. Rosenberg- 2964  
1 down when it goes over that so that when -- when the  
2 cigarette's placed on the furniture it will go out  
3 rather than ignite the furniture.  
4 Q. And when you stated that we make all  
5 of the paper in Spotswood, what were you referring  
6 to?  
7 A. Switzer Maudai, a company in  
8 Spotswood, New Jersey. They have a paper -- used to  
9 be part of Kimberly Clark. They have a paper-making  
10 factory in Spotswood, New Jersey. They make all the  
11 paper that we put on the cigarettes we make in this  
12 country.  
13 Q. And you also testified a few moments  
14 ago that you split your work between the technical  
15 work and the work you do for litigation. Is that  
16 correct?  
17 A. Yes, sir.  
18 Q. And what's the split over the past  
19 few years since your retirement?  
20 A. Well, I didn't consult before I  
21 retired so since I retired it's been about 50-50 I  
22 guess; something of that nature.  
23 Q. I'd like to have you tell the jury a  
24 little about your educational background. Did you  
25 go to college?  
-J. Whidby, Ph.D. - direct - Mr. Rosenberg- 2965  
1 A. Yes, sir, I did.  
2 Q. Where did you go to college?  
3 A. I went to North Georgia College in  
4 Dahlonega, Georgia.  
5 Q. And you graduated there with what  
6 degree?  
7 A. I got a Bachelor of Science Degree in  
8 chemistry.  
9 Q. And after you graduated from North  
10 Georgia College did you go into graduate school?  
11 A. Yes, sir, I did.



12 Q. And where was that?  
13 A. Went to the University of Georgia and  
14 got a Ph.D. in analytical chemistry.  
15 Q. Could you tell the jury, please, what  
16 analytical chemistry is?  
17 A. All right. Analytical chemistry is  
18 the science that's involved with trying to establish  
19 methods for measuring things, constituents in  
20 things.  
21 For example, if you wanted to measure  
22 the amount of nicotine that's in tobacco or the  
23 amount of nicotine that's in smoke, an analytical  
24 chemist would do that kind of work and set up that  
25 kind of method to do it.  
-J. Whidby, Ph.D. - direct - Mr. Rosenberg- 2966  
1 Q. What did you do after you got your  
2 Ph.D.?  
3 A. I went to work for the U.S. Army.  
4 North Georgia College was a or is a  
5 military school and I got a -- I received a  
6 commission on -- upon graduation from North Georgia  
7 College so I had an obligation to go into the Army  
8 after that so I was in the Army for about a year and  
9 a half or so after I got out of school.  
10 Q. What did you do in the Army?  
11 A. I was a chemical test officer at  
12 Dugway, Utah.  
13 Q. What does a chemical test officer do?  
14 A. We were evaluating large-scale  
15 testing in the desert -- Dugway, Utah's in the  
16 desert obviously -- of chemical agents and how those  
17 disperse in the environment as well as building  
18 protective devices for Army personnel and military  
19 personnel. Navy, too.  
20 Q. Were you honorably discharged?  
21 A. Yes, I was.  
22 Q. And then what did you do?  
23 A. After getting out of the Army I went  
24 to work for General Electric in -- at a facility,  
25 Bay Saint Louis, Mississippi. Lived in Slidell,  
-J. Whidby, Ph.D. - direct - Mr. Rosenberg- 2967  
1 Louisiana, which is very close to Bay Saint Louis,  
2 Mississippi.  
3 Q. Go ahead. I'm sorry.  
4 A. The facility there at the time -- and  
5 I think it's still in operation was -- is a NASA  
6 test facility.  
7 Q. NASA?  
8 A. NASA, yes.  
9 Q. That's the National Aerospace --  
10 Administration, right.  
11 The charge of the facility was to  
12 test fire the 75 rocket engines before they were put  
13 on the rockets and some of them were sent to the  
14 moon.  
15 Q. How long were you at General  
16 Electric?  
17 A. A little less than a year.  
18 Q. After that what did you do?  
19 A. Went to work for Philip Morris.  
20 Q. And what year was that?  
21 A. 1972.  
22 Q. What were you hired to do at Philip

23 Morris?  
24 A. I was hired as an analytical chemist.  
25 My first responsibility, if you will, or my first  
-J. Whidby, Ph.D. - direct - Mr. Rosenberg- 2968  
1 charge was to establish an NMR laboratory, a nuclear  
2 magnetic resonance laboratory.  
3 Q. Now, let me stop you for a second.  
4 When you got to Philip Morris did you  
5 know anything about cigarettes?  
6 A. No.  
7 Q. Did you do anything to learn about  
8 cigarettes?  
9 A. Yes.  
10 Q. And what did you do?  
11 A. Philip Morris has a very nice library  
12 and I spent a fair amount of time on my own  
13 basically reading about what -- what was going on at  
14 Philip Morris and some of the work that was going  
15 on.  
16 Q. When you say what was going on at  
17 Philip Morris and some of the work that was going on  
18 can you be more explicit?  
19 A. Well, the technical aspects of how  
20 cigarettes work, how cigarettes was designed,  
21 general analytical techniques that were applied to  
22 both tobacco and to smoke and just generally trying  
23 to learn about what -- what kind of projects I might  
24 be working on.  
25 Q. Did you learn about the history of  
-J. Whidby, Ph.D. - direct - Mr. Rosenberg- 2969  
1 cigarette design in Philip Morris up to 1972?  
2 A. Well, to some extent, yes.  
3 Q. And while you were at Philip Morris  
4 did you continue to keep yourself abreast of the  
5 scientific literature relating to cigarette design?  
6 A. Yes, I did.  
7 Q. Now, I think a few moments ago you  
8 mentioned that your first position was as an  
9 associate scientist at Philip Morris?  
10 A. Yes, it was an associate scientist.  
11 Q. And you started to tell that jury  
12 what your first job at Philip Morris was and please  
13 proceed to do so.  
14 A. Like I said the first job was to  
15 establish this laboratory. Philip Morris did not  
16 have a state-of-the-art nuclear magnetic resonance  
17 laboratory at the time.  
18 THE COURT: Wait. Wait. What?  
19 THE WITNESS: Slow down. I'm sorry.  
20 THE COURT: That's all right. What  
21 didn't you have?  
22 THE WITNESS: A nuclear magnetic  
23 resonance laboratory.  
24 THE COURT: All right. Thank you.  
25 Q. Let me stop you for a moment and ask  
-J. Whidby, Ph.D. - direct - Mr. Rosenberg- 2970  
1 you to explain what a nuclear magnetic resonance  
2 laboratory is, please?  
3 A. Right. Nuclear magnetic resonance is  
4 or the instrument to use with that technology -- I  
5 know it sounds real -- real big but it's not -- is  
6 sort of like the magnetic resonance imaging that is  
7 used in the medical community now. That didn't

8 exist in '72 and I didn't develop that but there's a  
9 technique used by analytical chemists that looks at  
10 molecules in a similar fashion that you'd look at,  
11 say, a whole body for imaging so I was establishing  
12 that laboratory. We used nuclear magnetic resonance  
13 techniques to measure constituents in smoke, to  
14 measure constituents in tobacco and to evaluate  
15 various organic chemicals that were being made for  
16 flavor applications and things like that and some  
17 other chemists at Philip Morris were making.

18 Is that sufficient?

19 Q. That sounds good to me, Doctor.

20 How long did you spend in the  
21 position of associate research -- associate  
22 researcher?

23 A. I was an associate scientist --

24 Q. Scientist. I'm sorry.

25 A. -- until the next year, 1973, when I  
-J. Whidby, Ph.D. - direct - Mr. Rosenberg- 2971  
1 was promoted to research scientist.

2 Q. And were you still after promotion  
3 working on the nuclear magnetic resonance  
4 laboratory?

5 A. Yes, I was.

6 Q. What was your next position at Philip  
7 Morris?

8 A. In 1978 I believe I was promoted to  
9 senior scientist. Concurrent with that but not  
10 because I moved from one position to another but  
11 concurrent to that I moved from the analytical  
12 research division to the computer applications  
13 division.

14 Q. And what did you do in the computer  
15 applications division?

16 A. In the computer applications division  
17 my primary responsibility was to acquire data from  
18 the laboratory, move that data from various  
19 instruments in the laboratory into the computer and  
20 use the computer to analyze the data, to assist the  
21 scientists in the laboratory and better analyzing  
22 their data and making conclusions about their data.

23 It sounds very easy to do now looking  
24 back upon the time but at that time computers and  
25 the use of computers, collecting of data from

-J. Whidby, Ph.D. - direct - Mr. Rosenberg- 2972  
1 instruments was not something you could go buy off  
2 the shelf. You couldn't go buy the software, you  
3 couldn't go buy the hardware in most cases so we had  
4 to build it, write the software and -- and get that  
5 type of thing going. If you want to do it now you  
6 call somebody in and they'd do it in a day and be on  
7 with it but at the time it was -- it was  
8 state-of-the-art and we were -- we used that at  
9 Philip Morris.

10 Q. Doctor, what was the next job that  
11 you held at Philip Morris?

12 A. I stayed in the computer applications  
13 division from '78 until 1981 when I was promoted to  
14 the -- a position of manager for the biomaterials  
15 science division.

16 Q. And would you please tell the jury  
17 what the biomaterials science division is?

18 A. Right. The biomaterial science

19 division was primarily charged with evaluating  
20 tobacco and processes that were used on tobacco.  
21 Some of the projects -- sort of -- tell you a little  
22 bit about that.

23 Some of the projects we had within  
24 the division at the time was microscopy. We had a  
25 microscopy group that was capable of looking at  
-J. Whidby, Ph.D. - direct - Mr. Rosenberg- 2973  
1 tobacco, at any kind of scale, very small to  
2 scanning electron microscopy. We also had a group  
3 that was involved with looking and measuring the  
4 physical and chemical properties of tobacco with the  
5 thought that if we knew enough about that maybe we  
6 could make tobacco that would better survive the  
7 processing and not break up into fine pieces. More  
8 of it would get through.

9 Another group we had working was a  
10 group looking at a process to remove nitrate from  
11 one of the tobacco products we were using in our  
12 cigarettes.

13 Q. And the biomaterial science division,  
14 was that part of a larger directorate within Philip  
15 Morris?

16 A. Yes, it was.

17 Q. And was that -- which directorate was  
18 that?

19 A. It was part of the applied research  
20 directorate.

21 Q. And was that the directorate -- well,  
22 who was the head of that directorate while you were  
23 with the biomaterials science division?

24 A. Dr. Farone. Dr. William Farone.

25 Q. And was the applied research  
-J. Whidby, Ph.D. - direct - Mr. Rosenberg- 2974  
1 directorate part of Philip Morris's research and  
2 development department?

3 A. Yes, it was.

4 Q. How long did you spend as manager of  
5 the biomaterials science division?

6 A. I was manager of the biomaterials  
7 science division from 1981 until 1987.

8 Q. Then what happened?

9 A. I was moved from the biomaterials  
10 science division to the physical research division.  
11 Still being a manager.

12 Q. What is -- I'm sorry. What was the  
13 physical research division?

14 A. Well, I was going to say sort of what  
15 happened to the biomaterials -- I took with me from  
16 the biomaterials science division --

17 Q. Please slow down, Doctor.

18 A. I'm sorry. Thank you.

19 I took with me part of groups that  
20 were in the biomaterials science division into the  
21 physical research division. Part of it was moved to  
22 another -- the biomaterials science division is no  
23 longer in existence. It was a reorganization. In  
24 the physical research division so I had -- still had  
25 the microscopy group as well as groups that were

-J. Whidby, Ph.D. - direct - Mr. Rosenberg- 2975  
1 responsible for expanded tobacco, groups that were  
2 responsible for removing nitrate -- removing  
3 nicotine from tobacco, a group that was responsible

4 for developing nonconventional cigarettes.  
5 Q. What was your next position at Philip  
6 Morris?  
7 A. My next position occurred in 1991  
8 when I was promoted to director of basic research.  
9 Q. And what was the purpose of the basic  
10 research division -- directorate. I'm sorry.  
11 A. The basic research directorate had at  
12 the time three divisions in it. It had the physical  
13 research division and all of its responsibilities,  
14 it had the computer applications division and it had  
15 the chemical research division in it.  
16 Q. Was there any relationship between  
17 the basic research directorate and the applied  
18 research directorate that Dr. Farone had been the  
19 director of?  
20 A. They were fundamentally the same  
21 directors. They had different names but  
22 fundamentally the same responsibilities.  
23 Q. So the job that you had beginning in  
24 1991 was the same job that Dr. Farone had had  
25 several years earlier?  
-J. Whidby, Ph.D. - direct - Mr. Rosenberg- 2976  
1 A. Yes, it was.  
2 Q. At some point were you promoted  
3 again?  
4 A. Yes, I was.  
5 Q. And can you tell the jury what your  
6 next promotion was?  
7 A. In 1993 I was promoted to the  
8 position of Fellow. I was a technology Fellow.  
9 Q. Fellow?  
10 A. Yes. Fellow.  
11 Q. And what is a Fellow within the  
12 meaning of Philip Morris Department of Research and  
13 Development?  
14 A. Other than being a funny title it's  
15 the highest technical position that Philip Morris  
16 has.  
17 The position of Fellow is something  
18 that is awarded in a lot of technical companies --  
19 technical organizations.  
20 Q. How many Fellows were there at Philip  
21 Morris when you were named a Fellow?  
22 A. There was one other.  
23 Q. Out of how many scientists in the  
24 Research and Development Department?  
25 A. At the time around 500, 550 maybe.  
-J. Whidby, Ph.D. - direct - Mr. Rosenberg- 2977  
1 Q. And what were your duties as  
2 technology Fellow within the Department of Research  
3 and Development at Philip Morris?  
4 A. My primary duties were to look at  
5 technologies that were coming -- coming over --  
6 coming around, to evaluate those, to find out if  
7 they could help Philip Morris out or not and to --  
8 if they could, to bring those in-house and apply  
9 them to our -- our objectives.  
10 Q. Where was the Research and  
11 Development Department located while you were with  
12 Philip Morris?  
13 A. In Richmond, Virginia.  
14 Q. And that's where it still is?

15 A. Yes, it is.  
16 Q. While you were there can you describe  
17 what the facilities were like?  
18 A. The facilities are still this way.  
19 They're state-of-the-art. They have some of the  
20 best people working on -- on the problems that  
21 Philip Morris has. We have the best equipment that  
22 we can buy and I think they're state-of-the-art  
23 facilities.  
24 Q. And I think you mentioned a few  
25 moments ago that there were about 500 scientists  
-J. Whidby, Ph.D. - direct - Mr. Rosenberg- 2978  
1 when you were named a Fellow?  
2 A. On that order, yes.  
3 Q. How many were there when you arrived  
4 in 1972?  
5 A. Something like about 300 I believe.  
6 Q. Of the scientists at the R and D  
7 Department can you estimate how many of them had  
8 science or engineering degrees? What proportion?  
9 A. Vast majority have science or  
10 engineering degrees. Of the 500 or so 3 or 400.  
11 Q. And can you estimate --  
12 A. At least.  
13 Q. I'm sorry.  
14 A. At least that many.  
15 Q. And can you approximate how many had  
16 Ph.D.s?  
17 A. I think something on the order of 20,  
18 25 percent. A hundred or 120. Something like that.  
19 Q. Now, did you have an area of  
20 specialty within the Philip Morris R and D  
21 Department?  
22 A. Yes.  
23 Q. And what was that area of specialty?  
24 A. Well, I started off -- my specialty  
25 was analytical chemistry but over time I added to  
-J. Whidby, Ph.D. - direct - Mr. Rosenberg- 2979  
1 that so that my specialty is in the area of  
2 cigarette design and product development.  
3 Q. What is product development?  
4 A. Product development is creating new  
5 products, modifying existing products, adding  
6 attributes to products.  
7 Q. Does that involve changes to  
8 cigarette designs?  
9 A. Yes.  
10 Q. And is that something that you worked  
11 on during your quarter of a century at Philip  
12 Morris?  
13 A. I don't like when you put it that way  
14 but that's a long time. Yes.  
15 Q. While you were at Philip Morris were  
16 there people at Philip Morris who studied product  
17 acceptability and consumer preferences?  
18 A. Yes.  
19 Q. And did you in your capacity as a  
20 product developer and cigarette designer interact  
21 with them?  
22 A. Yes, I did.  
23 Q. Can you describe for the jury how you  
24 interacted with them?  
25 A. Well, you make a -- make a

1           -J. Whidby, Ph.D. - direct - Mr. Rosenberg- 2980  
2     modification in a cigarette and you -- the  
3     modification would work and do what you expected it  
4     to do. Make a hypothetical example here. But  
5     that's -- that wasn't enough. It has to be  
6     consumer-acceptable. People have to say it's  
7     okay -- subjectively okay, it tastes okay, smokes  
8     okay. Then I would rely on this group to give me  
9     feedback, give me information on whether it was  
10    going to be something that people could smoke, would  
11    -- would buy so it would be consumer-acceptable.

12           Q.       Did that group provide you with  
13    information concerning consumer preferences and  
14    product acceptability on a regular basis?

15           A.       Yes.

16           Q.       Dr. Whidby, are you a member of any  
17    professional associations?

18           A.       Yes, I am.

19           Q.       And can you tell the jury which  
20    professional associations?

21           A.       Currently I'm a member of the  
22    American Chemical Society and the American Society  
23    of Testing Materials and I think -- I think that's  
24    all I'm a member of at this point.

25           Q.       In the past were you an active -- did  
26    you hold leadership in any professional societies?

          -J. Whidby, Ph.D. - direct - Mr. Rosenberg- 2981

1           A.       Yes.

2           Q.       Which ones?

3           A.       There's a society called or a group  
4    called CORESTA.

5           Q.       What is CORESTA?

6           A.       CORESTA is a group of -- it's a  
7    scientific group based in Paris, France, that is a  
8    collection of tobacco companies, universities,  
9    government agencies. All these people have the  
10   common interest of tobacco and the growing of  
11   tobacco, the manufacture of cigarettes and other  
12   tobacco products.

13          Q.       And what was your leadership position  
14   in CORESTA?

15          A.       I was a member of the scientific  
16   commission.

17          Q.       What did the scientific commission  
18   do?

19          A.       Well, one of the things that we did  
20   was to hold or assist in holding the meetings on an  
21   annual basis, bring in the scientists together, make  
22   presentations about their work.

23          Q.       Other than CORESTA --

24          A.       And then publish.

25          Q.       I'm sorry.

          -J. Whidby, Ph.D. - direct - Mr. Rosenberg- 2982

1          A.       I'm sorry. And then publish the  
2   abstracts from those meetings.

3          Q.       Other than CORESTA did you hold  
4   leadership positions in any professional societies  
5   or associations?

6          A.       Yes, I did.

7          Q.       Which ones?

8          A.       Tobacco Chemists Research Conference.

9          Q.       What is the Tobacco Chemists Research  
10   Conference?

11 A. It's somewhat similar to the CORESTA.  
12 CORESTA's an international -- CORESTA group is an  
13 international organization of cigarette  
14 manufacturers, tobacco manufacturers, vendors and  
15 the universities and government organizations so the  
16 same thing holds true for Tobacco Chemistry Research  
17 Conference in this country.

18 Q. And what was your leadership position  
19 with the Tobacco Chemists Research Conference?

20 A. I was a member of the advisory board.  
21 That's not the exact title but I can't remember what  
22 it was. That was our function.

23 Q. Have you written any peer-reviewed  
24 articles in your field?

25 A. Yes, I have.

-J. Whidby, Ph.D. - direct - Mr. Rosenberg- 2983

1 Q. How many?

2 A. I don't know. 25, 30, 40. I know.  
3 Something -- I don't...

4 Q. Do you hold any patents in the field?

5 A. Yes. A few.

6 MR. ROSENBERG: Your Honor, at this  
7 time I would like to tender Dr. Whidby as an expert  
8 in the areas of cigarette design, product  
9 development and analytical chemistry.

10 MR. PATRICK: No objection.

11 MR. ROSENBERG: And, Your Honor, this  
12 might be a good place to stop.

13 THE COURT: As soon as I qualify him,  
14 Mr. Rosenberg.

15 MR. ROSENBERG: Oh, I'm sorry.

16 THE COURT: You don't feed them at  
17 the right time, you see what happens? All right.

18 Ladies and gentlemen, I'm qualifying  
19 this gentleman in the areas of cigarette design,  
20 product development and analytical chemistry and  
21 after lunch we will hear his opinions on these  
22 subjects.

23 Put your notebooks down. We're going  
24 to have you go to lunch. Kenny, I'd like them back,  
25 ready to go at 20 of 2, okay?

-J. Whidby, Ph.D. - direct - Mr. Rosenberg- 2984

1 (At this time the jury leaves the  
2 Courtroom at 12:18 p.m.)

3 THE COURT: Doctor, take your  
4 microphone off. You're excused for lunch.

5 THE WITNESS: Thank you.

6 THE COURT: Everyone to lunch. Be  
7 back ready to go 1:35.

8 A little frisky here, Mr. Rosenberg.  
9 Okay. Thank you.

10 MR. ROSENBERG: Thank you, Your  
11 Honor.

12 THE COURT: Have a good lunch.

13 MS. ROOSEVELT: Thank you, Your Honor.  
14 (Luncheon recess taken at 12:18 p.m.)  
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-J. Whidby, Ph.D. - direct - Mr. Rosenberg- 2985

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THE COURT: Please be seated, just waiting for Ken to bring the jury up.

Just want to talk about scheduling for Monday. Monday, we are off?

MR. ROSENBERG: That's right, your Honor.

MR. PATRICK: Are we going to be on on Friday?

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THE COURT: I would like to use Friday morning if we have to have a spillover. That's what I'm thinking now. So can you let me know by Tuesday. Can you speak to one another and let me know? I don't want to alert the jury from now, but I'll tell them on Tuesday -- although, I will tell them we may have to take part of Friday, but I'll let them know better on Tuesday, Wednesday.

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MR. PATRICK: That's fine.

THE COURT: I'm penciling it downstairs at the jury room: Sort of an arcane expression. I'll send an e-mail downstairs. I don't know why that would come to my head. By the end of day I'm going to get an agreed-to evidence sheet, signed off by everybody? Do you need more

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-J. Whidby, Ph.D. - direct - Mr. Rosenberg- 2986 time?

THE COURT: By Tuesday is fine.

MR. MIGLIORI: We believe it is. Chris Michie is the only -- last person to check with.

(The jury enters the courtroom.)

THE COURT: All right. Thank you very much, please be seated. Let's continue please.

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DIRECT EXAMINATION CONT. BY MR. ROSENBERG:

Q. Thank you, your Honor.

Good afternoon, ladies and gentlemen. Dr. Whidby, we mentioned Dr. Farone briefly. Did you work with him at Philip Morris?

A. Yes, sir, I did.

Q. And can you describe the nature of your interaction with Dr. Farone at Philip Morris?

A. Right. From 1978 through 1981 when I was appointed manager -- 1978 is when I went to the computer applications division, from 1978 to 1981 Dr. Farone was the -- my boss' boss. He was the director to which I was under his directorate in 1981. Then I reported directly to Dr. Farone.

Q. Were you working for Philip Morris before Dr. Farone came to Philip Morris?

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4  
5  
6

-J. Whidby, Ph.D. - direct - Mr. Rosenberg- 2987

A. Yes, I was.

Q. And for how many years?

A. From 1972 to -- I think he came in 1976, four years approximately.

Q. And did you continue to work for Philip Morris after Dr. Farone left Philip Morris?

7 A. Yes. He left in '84 and I left in  
8 '98, so that's about 14 years, I guess.

9 Q. Did you have occasion to speak with  
10 him often on the job?

11 A. Yes, I did.

12 Q. And can you describe the nature of or  
13 how regular those discussions were?

14 A. There are a number of times we would  
15 get together. Most of time we had coffee together  
16 in the morning before work to discuss sort of what  
17 is going on. On occasions -- and on occasions to  
18 discuss technical things to talk about what is going  
19 on in the department, and on other occasions we  
20 would have formal meetings, director's meetings  
21 which he would call, and that was done basically  
22 once a week in which he would talk to his managers  
23 about managerial aspects and technical aspects of  
24 things we needed to do. On other occasions,  
25 seminars, I had frequent and continuing interactions

-J. Whidby, Ph.D. - direct - Mr. Rosenberg- 2988

1 with Dr. Farone.

2 Q. Did you speak with him outside work  
3 as well?

4 A. Yes, I did.

5 Q. Did you socialize with him?

6 A. Yes.

7 Q. Can you estimate how many  
8 conversations you had with Dr. Farone over the eight  
9 years that you and he were both at Philip Morris in  
10 which you discussed or heard him discuss  
11 professional -- matters relating to cigarette design  
12 and product development?

13 A. Numbers of times, hundreds --  
14 thousands, I don't know. I can't say really, but at  
15 least on a daily basis, sometimes several times a  
16 day, probably on the order of a thousand or so. I  
17 don't know.

18 Q. Dr. Whidby, what was the purpose of  
19 the research and development department in the 26  
20 years you were at Philip Morris?

21 A. The purpose of the research and  
22 development department was to make safer cigarettes,  
23 I believe.

24 Q. And what was your own mission while  
25 you were at Philip Morris?

-J. Whidby, Ph.D. - direct - Mr. Rosenberg- 2989

1 A. My own mission was to make a safer  
2 cigarette.

3 Q. And was that also Dr. Farone's  
4 mission while you were there?

5 A. Yes, it was.

6 Q. In the efforts of yourself and your  
7 colleagues at Philip Morris to make a safer  
8 cigarette, did you and your colleagues there operate  
9 under any working assumptions concerning whether  
10 cigarette smoke caused cancer?

11 A. Yes, we did.

12 Q. And could you tell the jury what  
13 assumptions you operated under?

14 A. What I assumed was that cigarettes do  
15 cause cancer.

16 Q. While you were at Philip Morris, did  
17 you take into consideration the position from the

18 public health community about whether there were  
19 carcinogens in tobacco smoke in connection with your  
20 cigarette design and product development work?

21 A. Yes, we did.

22 Q. And how did you take that into  
23 consideration?

24 A. We assumed they were right.

25 Q. Dr. Whidby, how do you feel about the  
-J. Whidby, Ph.D. - direct - Mr. Rosenberg- 2990  
1 work you did at Philip Morris?

2 A. Very proud of it, and I'm still very  
3 proud of what I'm doing today.

4 Q. Do you believe that Philip Morris  
5 made progress while you were there?

6 A. Yes, I to.

7 Q. In your opinion to a reasonable  
8 degree of scientific certainty, Dr. Whidby, during  
9 the period up to and through 1974, did Philip Morris  
10 make cigarettes consistent with the state of art?

11 A. I believe they did, yes.

12 Q. Doctor, have you ever heard of  
13 anything called whole product testing while you were  
14 at Philip Morris?

15 A. While I was at Philip Morris until --  
16 no.

17 Q. When was the first you heard of it?

18 A. Heard of it about -- I think about a  
19 year-and-a-half ago.

20 Q. What were the circumstances under  
21 which you heard of it?

22 A. I was -- I think I was at a  
23 deposition for a trial that was held in California.

24 Q. And who first used the words in your  
25 presence?

-J. Whidby, Ph.D. - direct - Mr. Rosenberg- 2991

1 A. One of the attorneys who was deposing  
2 me. I think she asked me about whole product  
3 testing, as I recall. It may have been in the  
4 trial -- either the deposition or the trial, one or  
5 the other.

6 Q. Is whole product testing a term of  
7 art in the tobacco industry?

8 A. No, it's not.

9 Q. During the period from the '50s up  
10 until the mid 1970s, can you describe the sort of  
11 tests that Philip Morris had conducted on  
12 cigarettes?

13 A. Yes.

14 Q. And what sort of tests were they?

15 A. We had chemical tests, biological  
16 tests, physical tests of cigarettes; every test that  
17 you can think of practically for nicotine, other  
18 things, major constituents in smoke.

19 Q. During the period up to and through  
20 1974, did Philip Morris in your opinion to a  
21 reasonable degree of scientific certainty  
22 appropriately test cigarettes in connection with its  
23 development -- in connection with its attempts to  
24 make a safer cigarette?

25 A. Yes, we did.

-J. Whidby, Ph.D. - direct - Mr. Rosenberg- 2992

1 Q. Now, Doctor, the jurors heard of the  
2 term selective reduction and we're not going to go

3 into the basics of that again here. I want to  
4 direct your attention to Philip Morris' attempts to  
5 selectively reduce certain compounds in tobacco  
6 smoke, okay?

7 A. Yes.

8 Q. And cigarette smoke. Are you  
9 familiar with Philip Morris' efforts to attempt to  
10 selectively reduce compounds in cigarette smoke?

11 A. Yes, I am.

12 Q. How long has Philip Morris been  
13 attempting to selectively reduce compounds in  
14 cigarette smoke?

15 A. They were working on that before I  
16 went to Philip Morris in '72. Certainly since early  
17 on they were working on it, and we're still working  
18 on it today. It's one of the things I work on when  
19 I consult with Philip Morris.

20 Q. And while you were at Philip Morris,  
21 were you involved in Philip Morris' attempts to  
22 selectively reduce compounds in cigarette smoke?

23 A. Yes, I was.

24 Q. Which classes of compounds in  
25 cigarette smoke did Philip Morris try to selectively  
-J. Whidby, Ph.D. - direct - Mr. Rosenberg- 2993  
1 reduce?

2 A. The ones that come to mind are  
3 nitrosamines, benzopyrenes, oxides in oxygen, carbon  
4 dioxide. There are others, I just can't think of  
5 them right now, sorry.

6 Q. Was Philip Morris successful in  
7 selectively reducing the compounds that you  
8 mentioned?

9 A. Some of them, and some of them not  
10 so.

11 Q. Can you give us an example of their  
12 attempts -- you mentioned phenols?

13 A. Phenols, yes.

14 Q. P-H-E-N-O-L?

15 A. Yes.

16 Q. Can you describe Philip Morris'  
17 attempts to reduce phenols?

18 A. Philip Morris's attempts to reduce  
19 phenol was to examine materials added to filters.  
20 The materials that are added to filters are called  
21 plasticizers. The purpose of the plasticizer is to  
22 fundamentally bond the little fibers together in the  
23 filter and hold it together so you can make a tube  
24 out of it that won't come apart. And there's  
25 various types of plasticizers that you can use. One  
-J. Whidby, Ph.D. - direct - Mr. Rosenberg- 2994  
1 they use called triacetin is extremely effective in  
2 removing phenols from the smoke stream.

3 Q. And did Philip Morris implement a  
4 process using triacetin to reduce phenols?

5 A. Yes, it did.

6 Q. And when did Philip Morris do that?

7 A. I think that was in the mid '50s that  
8 was first implemented.

9 Q. Was the process improved after that  
10 time?

11 A. Was it improved?

12 Q. Yes.

13 A. We continue to use triacetin, and we

14 work on ways to find other additives to the filter,  
15 so it's probably more -- it is more effective today  
16 than it was then, yes.

17 THE COURT: I'm sorry. Your question  
18 was improved, I-M?

19 MR. ROSENBERG: Improved, yes.

20 Q. Has Philip Morris attempted to  
21 selectively reduce benzo(a)pyrene in cigarette  
22 smoke?

23 A. Yes, they have.

24 Q. Was Philip Morris successful in its  
25 efforts to selectively reduce benzo(a)pyrene in  
-J. Whidby, Ph.D. - direct - Mr. Rosenberg- 2995  
1 tobacco spoke?

2 A. We have not been successful to date  
3 to remove benzo(a)pyrene in smoke. We're still  
4 working on it as an active project that I continue  
5 to work on to try to help people to do that. We  
6 have reduced benzo(a)pyrene in our products but that  
7 comes along with the general tar reduction.

8 Q. And we'll talk that a few moments  
9 about general tar reduction, but can you describe  
10 for the jury the attempt by Philip Morris to  
11 selectively reduce benzo(a)pyrene in cigarette  
12 smoke?

13 A. Over the years we looked at various  
14 filter materials, various additives to the filter  
15 hoping we can try find something like triacetin that  
16 would remove the benzopyrene. We've looked at  
17 modifying the tobaccos to find out if we could  
18 somehow get a different tobacco that would produce  
19 less benzo(a)pyrene. We haven't found that. That  
20 is an area that we haven't been successful to date.

21 Q. To your knowledge has anyone in the  
22 industry been successful so far in selectively  
23 reducing benzo(a)pyrene from cigarette smoke?

24 A. No one has been successful.

25 Q. And in your opinion to a reasonable  
-J. Whidby, Ph.D. - direct - Mr. Rosenberg- 2996  
1 degree of scientific certainty, could Philip Morris  
2 have selectively reduced benz(a)pyrene prior to  
3 1974?

4 A. No.

5 Q. Now, you mentioned nitrosamines, has  
6 Philip Morris attempted to selectively reduce  
7 nitrosamines?

8 A. Yes, we have.

9 Q. When did those effort begin?

10 A. There's two types of nitrosamines,  
11 the tobacco specific nitrosamines and the volatile  
12 nitrosamines.

13 Q. Volatile nitrosamines?

14 A. Yes.

15 Q. Can you explain the differences  
16 between volatile nitrosamines and tobacco specific  
17 nitrosamines?

18 A. Yes, I will. Volatile nitrosamines  
19 are nitrosamines that are in the vapor phase -- by  
20 and large in the vapor phase of the smoke. You know  
21 smoke is made up of two phases, the particles and  
22 the vapor phase, sort of gas phase of the smoke.  
23 The volatile nitrosamines are in the gas phase, and  
24 they're present in materials other than tobacco. On

25 the other hand, the tobacco specific nitrosamines  
-J. Whidby, Ph.D. - direct - Mr. Rosenberg- 2997  
1 are only found in tobacco, and primarily -- and in  
2 smoke when you burn the tobacco. Tobacco specific  
3 nitrosamines are in the particulate phase, and we've  
4 been successful with the non-tobacco specific  
5 nitrosamines in reducing those. It turns out that  
6 the triacetin in the cellulose acetate filter is a  
7 very effective filter for selectively reducing the  
8 volatile nitrosamines.

9 Q. Let me stop you for half a second to  
10 make sure that I understood what you said?

11 A. Okay.

12 Q. Did you just say that the triacetin  
13 in the cellulose acetate filter was effective in  
14 reducing volatile nitrosamines?

15 A. Yes, I did.

16 Q. And when did Philip Morris implement  
17 triacetin with the cellulose acetate filters with  
18 the result of effectively reducing volatile  
19 nitrosamines?

20 A. I said in the '50s, before.

21 Q. How about tobacco specific  
22 nitrosamines; what steps has Philip Morris taken to  
23 reduce tobacco specific nitrosamines?

24 A. Tobacco specific nitrosamines, as I  
25 said before, are a reaction between the alkaloid in  
-J. Whidby, Ph.D. - direct - Mr. Rosenberg- 2998

1 tobacco, such as nicotine, nornicotine and a few  
2 others, that occurs primarily when you burn the  
3 tobacco. They also can be formed during the curing  
4 process.

5 Q. Let me -- may I stop you for a  
6 second?

7 A. Yes.

8 Q. When were tobacco specific  
9 nitrosamines identified in tobacco smoke?

10 A. They were suspected to be in tobacco  
11 smoke as early as the late '60s, but they really  
12 weren't identified and proven to be in tobacco -- in  
13 the smoke of cigarettes until the mid '70s when  
14 Philip Morris and others developed techniques to be  
15 able to measure the tobacco specific nitrosamines.

16 Q. Before the tobacco specific  
17 nitrosamines were identified in tobacco smoke, had  
18 Philip Morris begun any effort to try to reduce  
19 them?

20 A. Well, the steps we take to -- in a  
21 situation like that, if something is suspected that  
22 it's there, well, the first thing you've got to do  
23 is figure a way to measure it, because if you can't  
24 measure it, you can't tell to take it out. So we  
25 started work on developing techniques and local

-J. Whidby, Ph.D. - direct - Mr. Rosenberg- 2999  
1 techniques to measure nitrosamines and tobacco  
2 specific nitrosamines. We also started to think  
3 about the chemistry that would go into how these  
4 nitrosamines might be formed. And if you think  
5 about the chemistry, what things would go together  
6 and react to form nitrosamines, we started to think  
7 about ways to take those out. So yeah, we  
8 simultaneously, we started to think of ways to take  
9 them out as well as ways to measure them if we found

10       them there.

11               Q.       What things result in tobacco  
12       specific nitrosamines?

13               A.       The primary things, other than the  
14       alkaloid we talked about in tobacco just a minute  
15       ago, is nitrates.

16               Q.       Did Philip Morris take any steps to  
17       try to reduce nitrates?

18               A.       Yes.

19               Q.       And what steps did Philip Morris  
20       take?

21               A.       The step that we have in one of our  
22       processes today is called crystallization, and  
23       crystallization -- the process I'm talking about is  
24       in the manufacture of RL, reconstituted tobacco,  
25       reconstituted leaf. And we have -- in that process

              -J. Whidby, Ph.D. - direct - Mr. Rosenberg- 3000

1       we extract the solubles off the tobacco leaf much  
2       like a paper-making process, and those solubles then  
3       will contain the water solubles that are in the  
4       portion of the tobacco. We cool that liquid down,  
5       and when it's cooled, the nitrates that is in that  
6       solution will precipitate fallout, run that through  
7       a centrifuge, collect those crystals, and then  
8       return that liquid back to the tobacco. So we take  
9       out the nitrates in that process.

10              Q.       As a result of using that process,  
11       what percentage of tobacco specific nitrosamines in  
12       the reconstituted leaf was Philip Morris able to  
13       eliminate?

14              A.       Well, we were able to eliminate the  
15       nitrates from that. That process did not eliminate  
16       any of the pre-occurring nitrosamines that would be  
17       in that particular portion of the leaf, but we  
18       prevented any -- anything before that.

19              Q.       Was Philip Morris able to develop the  
20       crystallization process?

21              A.       I believe they did.

22              Q.       Do you know when Philip Morris  
23       developed the crystallization process?

24              A.       It was in our RL process in the late  
25       '70s.

              -J. Whidby, Ph.D. - direct - Mr. Rosenberg- 3001

1              Q.       In your opinion to a reasonable  
2       degree of scientific certainty, was that process  
3       technically feasible prior to the time it was  
4       implemented by Philip Morris?

5              A.       No, it was not.

6              Q.       After Philip Morris developed the  
7       crystallization process, did it continue its  
8       attempts to try to reduce nitrates?

9              A.       Yes, we did.

10             Q.       And what did it do?

11             A.       Since we were not totally effective  
12       in removing the nitrate with the crystallization,  
13       there is two other areas that we were working. One  
14       was called electrodialysis. Electrodialysis is like  
15       making fresh water out of sea water. You try to  
16       take the salt out of the sea water, and that was a  
17       process that we were looking at. And the other was  
18       a bacterial fermentation process in that factory.

19             Q.       Did those efforts work?

20             A.       No. The electrodialysis didn't work

21 because of efficiency, and the bacterial  
22 fermentation process didn't work because we couldn't  
23 control it, nor did it produce acceptable product.

24 Q. In your opinion to a reasonable  
25 degree of scientific certainty, Dr. Whidby, were  
-J. Whidby, Ph.D. - direct - Mr. Rosenberg- 3002  
1 Philip Morris' attempts to selectively reduce  
2 nitrosamines in tobacco smoke in accordance with the  
3 state of art?

4 A. Yes, it was.

5 Q. Now, why is selective reduction  
6 difficult?

7 A. Selective reduction is extremely  
8 difficult, because if you think about a smoke  
9 particle or smoke in itself, it's made up of a bunch  
10 of particles, and each one of those particles  
11 contains over 4,000 compounds. It's like going in  
12 and trying -- if the material happens to be in those  
13 particles, the vapor phase it's easier. If it's in  
14 those particles, you've got to try to remove that  
15 individual component from that particle, and it's  
16 extremely difficult.

17 Q. Did Philip Morris continue to make  
18 attempts to selectively reduce compounds in  
19 cigarette smoke despite the time you were at Philip  
20 Morris?

21 A. Yes. We're still working on it.

22 Q. Are there any techniques of selective  
23 reduction of potentially harmful compounds that are  
24 technically feasible and practical which Philip  
25 Morris has not implemented?

-J. Whidby, Ph.D. - direct - Mr. Rosenberg- 3003  
1 A. No.

2 Q. Were there any techniques of specific  
3 reduction of potentially harmful compounds which  
4 were technically feasible and practical which Philip  
5 Morris had not implemented by the end of 1974?

6 A. No.

7 Q. Now, you mentioned a few moments ago  
8 general reduction. Again, the jurors heard about  
9 general reduction, so we're not going to have you  
10 define it for the jury. But has Philip Morris  
11 attempted to reduce the overall amount of tar and  
12 nicotine yield from cigarette smoke?

13 A. Yes, we have.

14 Q. And that's what general reduction is?

15 A. That's right.

16 Q. And are you familiar with Philip  
17 Morris' attempts to generally reduce tar and  
18 nicotine?

19 A. Yes, I am.

20 Q. And did Philip Morris reduce the  
21 yield of tar and nicotine in its Marlboros between  
22 the mid 1950s and the mid 1970s?

23 A. Yes, we did.

24 Q. And have you prepared a graph to  
25 demonstrate that?

-J. Whidby, Ph.D. - direct - Mr. Rosenberg- 3004  
1 A. Yes, I have.

2 MR. ROSENBERG: Charles, if I can see  
3 slide No. 7, please, and can you just tell the jury  
4 what that slide shows.

5 A. I assume they're seeing the same



6 thing I'm seeing.  
7 Q. Yes, they are. I hope so.  
8 A. What it says, Marlboro yield  
9 reductions in the overhead up there, and the left-  
10 hand chart, which it says -- on the bottom it says  
11 1955 to 1974. In 1955, the yield of the Marlboro  
12 was 127 milligrams of tar, and in 1974 it had been  
13 reduced to 70 milligrams of tar.  
14 On the right-hand side, the same  
15 years, 1955 and 1974, the nicotine yield was 2.6  
16 milligrams down to 1.1 milligram.  
17 Q. Has Philip Morris continued in its  
18 efforts to generally reduce tar and nicotine yields  
19 in cigarette smoke since 1974?  
20 A. Yes, they have.  
21 Q. How has Philip Morris attempted to  
22 generally reduce tar and nicotine yields in  
23 cigarette smoke?  
24 A. Right. There's four fundamental  
25 technologies, if you will, that we use to reduce tar  
-J. Whidby, Ph.D. - direct - Mr. Rosenberg- 3005  
1 and nicotine in our cigarettes. And those are  
2 through the use of filtration, through filter  
3 ventilation, putting holes in the filter, through  
4 the use of porous paper and the use of expanded  
5 tobacco.  
6 Q. Let's start with filtration,  
7 Dr. Whidby. Was Philip Morris working on filter  
8 technology in when you started working on 1972?  
9 A. Yes.  
10 Q. Were there already filters on its  
11 cigarettes?  
12 A. Yes.  
13 Q. Were you involved in the filtration  
14 effort after you got to Philip Morris?  
15 A. Yes.  
16 Q. When did Philip Morris first begin  
17 placing filters on its cigarettes?  
18 A. First filters on Philip Morris'  
19 cigarettes was in the early mid '50s.  
20 Q. Has filter technology improved since  
21 the mid '50s?  
22 A. Yes.  
23 Q. In which ways?  
24 A. Many ways.  
25 Q. Please explain?  
-J. Whidby, Ph.D. - direct - Mr. Rosenberg- 3006  
1 A. All right. Briefly, filter  
2 technology -- we'll talk a little about bit about  
3 what we had or they had in the '50s. I was in  
4 grammar school probably. The fibers that are used  
5 in the cellulose acetate filter by today's standards  
6 were very, very large. Small fibers make better  
7 filters.  
8 Those fibers also were cylindrically  
9 shaped. They didn't have any structure to the  
10 outside of them. In today's filters they're  
11 Y-shaped, and those Y-shaped filter fibers are again  
12 more efficient for the collection of tar than are  
13 the cylindrical fibers.  
14 Additionally, the people who  
15 manufacture the cellulose acetate filter, Eastman  
16 Chemical and Celanese, have devised a way to crimp

17 those fibers and cause them not to be straight but  
18 to be crimped, and that also is better at trapping  
19 smoke particles.

20 So with the crimping, the shape of  
21 the fibers, the smaller fibers, being able to get  
22 more into the same volume, and making them in some  
23 cases longer filters, that's generally how the  
24 progress has gone.

25 Q. Dr. Whidby, in your opinion to a  
-J. Whidby, Ph.D. - direct - Mr. Rosenberg- 3007  
1 reasonable degree of scientific certainty, at all  
2 times from the mid '50s up to and through the mid  
3 '70s, did Philip Morris implement and make  
4 improvements in its filters in accordance with the  
5 state of art at the time?

6 A. Yes, we did.

7 Q. Since the mid '70s, has Philip Morris  
8 been able to make improvements in its filters that  
9 would not have been technically feasible or  
10 practical prior to the mid '70s?

11 A. Yes, we have.

12 Q. And can you give the jury an idea of  
13 the magnitude of the effort to improve filters over  
14 this period of time?

15 A. Since I've been at Philip Morris  
16 since 1972 and to today, the filter technology  
17 group, the filter development group has had eight to  
18 ten people, sometimes more, working almost  
19 exclusively in that area.

20 Q. You mentioned permeable paper. Is  
21 that the same thing as porous paper?

22 A. The terms are used interchangeably.  
23 Some technical people would probably be using one  
24 versus the other, but for all practical purpose, yes.  
25 Permeable paper could be something like a Kleenex

-J. Whidby, Ph.D. - direct - Mr. Rosenberg- 3008  
1 paper. You can breathe through it. Get air through  
2 it. Whereas, impermeable paper is something like  
3 typing paper. You really can't breathe through it  
4 or get air through it very well.

5 The importance of having permeable  
6 paper on the cigarette is because having that would  
7 allow the gases that are in the cigarette to diffuse  
8 out of the smoke stream, get out of the smoke stream  
9 and not get into the smoker's mouth and be replaced  
10 by air from the outside.

11 Q. When did Philip Morris first start  
12 using permeable paper in its cigarettes?

13 A. That was around 1960.

14 Q. And in your opinion to a reasonable  
15 degree of scientific certainty, Doctor, was Philip  
16 Morris' use of permeable paper in accordance with  
17 the state-of-the-art at that time?

18 A. Yes.

19 Q. Since that time, has Philip Morris  
20 implemented advances in the use of permeable paper  
21 that were not technically feasible before that time?

22 A. Yes, we have. We continue to work  
23 with the Spotswood facility in the development of  
24 their papers to put on our cigarettes, and we have  
25 active programs going on right now with them,

-J. Whidby, Ph.D. - direct - Mr. Rosenberg- 3009  
1 research programs working with it.

2 Q. Can you describe the nature of the  
3 advances in permeable paper?  
4 A. The degree of permeability that we  
5 can use and the strength of paper that we have to  
6 have to have it survive the manufacturing process  
7 are two issues. And the consistency of the paper,  
8 we have to have uniform -- uniformly consistent  
9 paper from one yard to the next, if you will.  
10 Q. Let's talk a bit about ventilation.  
11 When did Philip Morris first start using ventilation  
12 in its product?  
13 A. I think it was in the mid to --  
14 mid-'60s, mid to late '60s.  
15 Q. And between the mid to late '60s and  
16 the mid '70s, in your opinion to a reasonable degree  
17 of scientific certainty, was Philip Morris' use of  
18 ventilation in its cigarettes in accordance with the  
19 state-of-the-art?  
20 A. Yes.  
21 Q. And since the mid '70s, have there  
22 been improvements in the ventilation process that  
23 were not technically feasible or practical prior to  
24 the mid '70s?  
25 A. Yes.  
-J. Whidby, Ph.D. - direct - Mr. Rosenberg- 3010  
1 Q. Can you describe those improvements  
2 for the jury, please?  
3 A. Yes. I think it was 1967 we first  
4 put vent holes in our filters and what we used there  
5 was mechanical perforation -- really, needles that  
6 punched holes in the filter and ventilated the  
7 filter so air could go in the filter rather than  
8 pulling all the smoke down.  
9 The next advance we made was to  
10 develop a process called electrostatic perforation,  
11 and electrostatic perforation is, in the simplest  
12 form, nothing more than electric sparks that go from  
13 an electrode through the paper, burns a hole in the  
14 paper, and that produced -- can produce ventilation  
15 in the tipping paper. It worked fine for the cork  
16 tipped paper, however, the burning of the holes left  
17 it -- left the spots there, so we couldn't use it on  
18 white tipped paper and we continued to use  
19 mechanical perforation for a period of time.  
20 The next advance we had. And this  
21 worked on white tipped paper, is laser perforation.  
22 We use high powered lasers to cut holes in the  
23 tipping paper at very high speed and in an extremely  
24 uniform fashion, so every cigarette would have the  
25 same amount of ventilation as every other cigarette.  
-J. Whidby, Ph.D. - direct - Mr. Rosenberg- 3011  
1 Q. How important was it for Philip  
2 Morris to be able to develop the electrostatic  
3 process?  
4 A. The electrostatic process also gave  
5 us a great deal of uniformity and consistency from  
6 cigarette to cigarette. It was very important to  
7 have as we moved to the lower tar category to have  
8 control over each and every cigarette.  
9 Q. When did Philip Morris develop the  
10 electrostatic ventilation process?  
11 A. The electrostatic ventilation process  
12 was developed in the late '70s.

13 Q. Was Philip Morris the first to  
14 develop that process?  
15 A. Yes, we were.  
16 Q. Was that process technically feasible  
17 or practical prior to when Philip Morris develop it?  
18 A. No, it's not.  
19 Q. When did Philip Morris develop the  
20 laser system of perforation?  
21 A. It was developed after the  
22 electrostatic process. There was people work -- we  
23 had the electrostatic process in the factory. It  
24 was running. We also had another team working on  
25 lasers. The lasers at that time were very new. We  
-J. Whidby, Ph.D. - direct - Mr. Rosenberg- 3012  
1 had to work with laser companies to modify their  
2 lasers to get them to work on the tipping paper  
3 lines.  
4 Q. And I'm sorry. When was that?  
5 A. It was co-developed with it, and it  
6 came on line after or shortly after the  
7 electrostatic perforation, and the date that the  
8 laser perforation came in escapes me at this point.  
9 Q. Did Dr. Farone work on it?  
10 A. Dr. Farone was there, yes.  
11 Q. So it was sometime when Dr. Farone  
12 was there?  
13 A. Yes, it was. It was in the late  
14 '70s.  
15 Q. And was Philip Morris the first to  
16 develop the laser perforation system?  
17 A. Yes, we were.  
18 Q. Now, when Dr. Farone was at Philip  
19 Morris, did you ever hear him say in words or in  
20 substance that Philip Morris had not developed the  
21 electrostatic method of perforation as early as they  
22 could have?  
23 A. No.  
24 Q. When Dr. Farone was at Philip Morris,  
25 did you ever hear him say in words or in substance  
-J. Whidby, Ph.D. - direct - Mr. Rosenberg- 3013  
1 that Philip Morris had not developed the laser  
2 perforation system as early as they could have?  
3 A. No.  
4 Q. When Dr. Farone was at Philip Morris,  
5 did you ever hear him say in words or in substance  
6 that Philip Morris had not developed any sort of  
7 ventilation system as early as they could have?  
8 A. No, I did not.  
9 Q. Now, I think you also mentioned  
10 expanded tobacco as a form of general reduction?  
11 A. Correct.  
12 Q. And again, the jury heard and saw  
13 what expanded tobacco is. Does Philip Morris use  
14 expanded tobacco in its product?  
15 A. Yes, we do.  
16 Q. Can you describe the Philip Morris  
17 process?  
18 A. Since I've been at Philip Morris,  
19 there's been two processes, but -- well, two  
20 processes. When I first started there, there was a  
21 process that had not been implemented but was  
22 implemented in exactly the same year I went, 1972.  
23 And it used ammonia carbonate as the expansion

24 process.

25 Q. Ammonia carbonate?

-J. Whidby, Ph.D. - direct - Mr. Rosenberg- 3014

1 A. Carbonate.

2 Q. Can you sell that please.

3 A. C-A-R-B-A-N-A-T-E. The tobacco was

4 impregnated with that, and then the material got

5 inside the tobacco. Then the tobacco was rapidly

6 heated. The tobacco then expanded like popcorn, and

7 all the material was driven off the tobacco, so it

8 ended up being just tobacco brought that had been

9 brought back to its green leaf state, like popcorn.

10 Q. Dr. Whidby, when did Philip Morris

11 first start using expanded tobacco in its product?

12 A. 1972.

13 Q. Was Philip Morris' use of expanded

14 tobacco in your opinion to a reasonable degree of

15 scientific certainty in accordance with the

16 state-of-the-art at the time?

17 A. Yes, it was.

18 Q. Have improvements become available in

19 expanded tobacco since the mid 1970s that were not

20 technically feasible or practical prior to that

21 time?

22 A. Yes.

23 Q. Doctor, I want you to assume that

24 there's been testimony in this case that there's an

25 alternative design for a cigarette that would

-J. Whidby, Ph.D. - direct - Mr. Rosenberg- 3015

1 produce a safe cigarette, and I want you to assume

2 that one such proposed design is to take a cigarette

3 as it is currently made, say Marlboro, and remove

4 the filler and replace it with tobacco leaf that has

5 been cut bigger, bigger particle size. First, have

6 you done research on the cut width of tobacco?

7 A. Yes.

8 Q. What is the standard cut width of

9 tobacco?

10 A. Philip Morris cuts it at 30 cuts per

11 inch.

12 Q. And can you explain to the jury what

13 you mean when you say Philip Morris cuts at 30 cuts

14 per inch?

15 A. Yes. It means that the width of the

16 tobacco is one 30th of an inch wide. The tobacco

17 shreds that are in a cigarette. So if you took 30

18 tobacco shreds and placed them side-by-side, it

19 would be an inch wide, so for every inch of tobacco

20 the you get 30 pieces of tobacco. That's 30 cuts

21 per inch.

22 Q. And those cuts are put into the

23 filler of a cigarette?

24 A. Yes.

25 Q. What is the smallest cut size of

-J. Whidby, Ph.D. - direct - Mr. Rosenberg- 3016

1 tobacco that you've ever personally evaluated?

2 A. 60 cuts per inch.

3 Q. That means one 60th of an inch?

4 A. That's right.

5 Q. And what is the largest cut width of

6 tobacco that you've evaluated?

7 A. Ten cuts per inch.

8 Q. Did you ever try larger cuts?

9 A. We got fussed at big time when we put  
10 ten cuts per inch and then tried to make it in the  
11 machines, because it would stop up the machines and  
12 the operators did that like us. So we stopped at  
13 ten cuts per inch.

14 Q. Were you able to make cigarettes out  
15 of larger cuts than ten cuts per inch?

16 A. No.

17 Q. Are cigarettes of larger particle  
18 size cuts uninhalable?

19 A. No.

20 Q. While you were at Philip Morris and  
21 while Dr. Farone was at Philip Morris, did  
22 Dr. Farone ever work on a larger particle cigarette?

23 A. No, not to my knowledge.

24 Q. While Dr. Farone was at Philip Morris  
25 did you ever hear him say in words or in substance  
-J. Whidby, Ph.D. - direct - Mr. Rosenberg- 3017  
1 that Philip Morris should investigate larger  
2 particle cigarettes?

3 A. No.

4 Q. Did you do any research, Dr. Whidby,  
5 on the changes in particle size of the smoke as  
6 opposed to the size of the tobacco leaf?

7 A. Yes.

8 Q. And can you describe that research  
9 for the jury, please?

10 A. There was some belief that some of us  
11 had, some researchers had, was that if you could  
12 change the size of the smoke particles, you might  
13 affect the way the cigarette tasted. And so we set  
14 up a group that would -- was charged with making  
15 measurements of the particle size -- the smoked  
16 particles of the cigarette. How big are they,  
17 that's what this group was trying to do. They were  
18 successful. They developed instrumentation to make  
19 these measurements.

20 Q. When was this, Doctor?

21 A. I believe we were successful in doing  
22 that in the late '80s, late 80s through maybe the  
23 early '90s.

24 Q. Then what happened with the project?

25 A. Since we now had the market tool,  
-J. Whidby, Ph.D. - direct - Mr. Rosenberg- 3018  
1 what we wanted to do is make variations that we  
2 could to effect particle size changes. And  
3 everything we tried, there was nothing we could do  
4 that would modify those particle sizes very much.  
5 And if you think about it, it really is -- is sort  
6 of silly to begin with, the physics of the  
7 condensation of the bulk of the materials that comes  
8 off the tobacco that cools and then makes those  
9 particles, so it doesn't change. The particle size  
10 is going to be the same if you're burning tobacco.

11 Q. No matter what size?

12 A. That's right.

13 THE COURT: Can I see counsels at  
14 side-bar please.

15 (A discussion is held off the record  
16 and outside the hearing of the jury.)

17 THE COURT: All right.

18 Q. Dr. Whidby, was an uninhalible  
19 cigarette technically feasible or practical in 1974?

20 A. I don't know how to make an  
21 uninhalible cigarette, no idea.

22 Q. Has anyone in the public health  
23 community recommended using wider cuts of tobacco in  
24 order to make a safer cigarette?

25 A. No, they have not.

-J. Whidby, Ph.D. - direct - Mr. Rosenberg- 3019

1 Q. I want you to assume, Dr. Whidby,  
2 that there was also testimony in this case by  
3 Dr. Farone, who testified, I guess about a week and  
4 a half ago, that another alternative device would be  
5 to make a nicotine delivery device that has no  
6 tobacco, but could be shaped like a cigarette. The  
7 device would be filled somehow with nicotine and  
8 flavor and the person using it would suck on it and  
9 inhale the nicotine and the flavor. In your opinion  
10 would this be a cigarette?

11 A. No.

12 Q. Why not?

13 A. The nicotine and smoke is not derived  
14 from the tobacco.

15 Q. Would such a device be different to a  
16 smoker than using a cigarette?

17 A. I think it would be vastly different.

18 Q. How?

19 A. It wouldn't function the same way.  
20 It wouldn't taste the same way. It just wouldn't be  
21 even close to what a cigarette was, I think.

22 Q. When you say that, can you give the  
23 jury some examples of the sorts of things that you  
24 feel makes a cigarette different than this device?

25 A. Well, a cigarette, first of all you  
-J. Whidby, Ph.D. - direct - Mr. Rosenberg- 3020

1 light it with a lighter, a match or something,  
2 right? You puff on it. You blow smoke out of your  
3 mouth. It has smoke coming from it. It tastes  
4 good, the cigarette does. It's just -- the other  
5 thing doesn't even -- other than perhaps physically  
6 resembling a cigarette, which I don't know that it  
7 would, it's not close.

8 Q. Is using such a device smoking in your  
9 opinion?

10 A. No.

11 Q. Are you familiar with nicotine  
12 inhaler devices?

13 A. I've seen some on the market or I've  
14 seen pictures of them.

15 Q. Are those cigarettes in your opinion?

16 A. No.

17 Q. Are you familiar with anyone who has  
18 tried to market a device similar to the device I  
19 described?

20 A. Yes.

21 Q. And when was that?

22 A. There's something called Favor.

23 Q. Favor?

24 A. Yes. That was on the market -- I  
25 believe it was in the mid to late '80s.

-J. Whidby, Ph.D. - direct - Mr. Rosenberg- 3021

1 Q. Who put it on the market, Doctor?

2 Was it Philip Morris?

3 A. No.

4 Q. Was it Reynolds?

5 A. No. It was not Reynolds.  
6 Q. Was it any of the major tobacco  
7 companies?  
8 A. I don't think so, no. It was a  
9 device that looked sort of looked like a cigarette.  
10 It had nicotine. As I recall it had nicotine on an  
11 absorbent material, probably cellulose acetate, in  
12 the middle of it and you puffed on it and supposedly  
13 got some nicotine out of it. You didn't light it.  
14 You didn't see smoke from it. You didn't blow smoke  
15 out of your mouth.  
16 Q. What happened to that product?  
17 A. What I understand, the FDA withdrew  
18 it from the product because it was a nicotine  
19 delivery device and not a cigarette.  
20 Q. Doctor, I want you to assume that  
21 there is testimony about another design which would  
22 be to take a cigarette and put something between the  
23 part of the cigarette that contains tobacco and the  
24 filter, and that something between the tobacco and  
25 the filter would block any of the tobacco smoke from  
-J. Whidby, Ph.D. - direct - Mr. Rosenberg- 3022  
1 getting through to the smoker, and that you would  
2 then put nicotine and flavors into the filter, and  
3 the person would suck on the filter and inhale  
4 nicotine and flavor. Is that device a cigarette?  
5 A. Not if they didn't get anything from  
6 the tobacco end of the cigarette, no, or the  
7 thing -- no, not a cigarette.  
8 Q. Could you make the barrier between  
9 the tobacco and the filter less effective so that  
10 perhaps a tiny bit of air could come through the  
11 tobacco to the filter?  
12 A. Yeah.  
13 Q. And in that situation, if the tobacco  
14 were lit, would the smoker get tar from puffing on  
15 that device?  
16 A. Yes.  
17 Q. Has Philip Morris ever made a  
18 cigarette that yielded four milligrams of tar or  
19 less?  
20 A. Yes.  
21 Q. And when was that?  
22 A. We're making products like that now.  
23 Q. When did it first make such a  
24 product?  
25 A. We've have products like that on the  
-J. Whidby, Ph.D. - direct - Mr. Rosenberg- 3023  
1 market in the late '70s, early '80s.  
2 Q. What was the lowest tar delivery  
3 cigarette that Philip Morris ever produced?  
4 A. We had one called Cambridge, .1 or  
5 less milligrams of tar.  
6 THE COURT: I'm sorry. What was that  
7 Mr. Rosenberg?  
8 MR. ROSENBERG: Cambridge.  
9 THE WITNESS: .1 or less milligrams  
10 of tar.  
11 Q. And do you know when that product was  
12 on the marketplace?  
13 A. I believe that that product was on  
14 the market in 1981.  
15 Q. Did that product, the Cambridge



16 cigarette have zero tar?  
17 A. No.  
18 Q. And how was Philip Morris able to  
19 accomplish as low a level of tar yield as .1?  
20 A. We used very, very high efficient  
21 filters. It was highly diluted with very porous  
22 paper and with a lot of expanded tobacco. So sort  
23 of the extremes of all of our design abilities.  
24 Q. Including the ventilation?  
25 A. Yes.  
-J. Whidby, Ph.D. - direct - Mr. Rosenberg- 3024  
1 Q. And what sort of ventilation process  
2 was used?  
3 A. It was laser perforation.  
4 Q. Is that the laser perforation that  
5 you talked about earlier?  
6 A. Yes, sir, it is.  
7 Q. Did you ever have a chance to smoke a  
8 Cambridge cigarette?  
9 A. Yes, I did.  
10 Q. Can you describe for the jury how it  
11 tasted?  
12 A. It didn't taste too much. It's sort  
13 of like very, very low, very little smoke, but you  
14 could see some smoke coming out of your mouth.  
15 Q. How was the taste?  
16 A. Not much.  
17 Q. Were there any difficulties with the  
18 cigarette as produced?  
19 A. Yes, it was extremely hard to light.  
20 Q. Why was that?  
21 A. Because you weren't pulling a whole  
22 lot of air through the tobacco column, although, you  
23 were pulling some. It was also extremely hard to  
24 draw on. The filter was rock hard, if you will.  
25 The resistance to draw was extremely high, and it  
-J. Whidby, Ph.D. - direct - Mr. Rosenberg- 3025  
1 was just a difficult cigarette to smoke.  
2 Q. And prior to putting the Cambridge  
3 cigarette on the market, did Philip Morris attempt  
4 to take steps to make a taste as good as possible?  
5 A. Yes.  
6 Q. And can you describe that process for  
7 the jury?  
8 A. We have -- or we had and we have  
9 groups at Philip Morris who are experts in flavor  
10 development and making -- creating and making  
11 flavors for cigarettes, and they did their best  
12 effort to design a flavor for the Cambridge, as well  
13 as the people who blend tobaccos selected the best  
14 blend of tobaccos for the Cambridge.  
15 Q. Did it meet with consumer  
16 acceptability?  
17 A. No.  
18 Q. I want you to assume that Dr. Farone  
19 suggested that Philip Morris could have fixed the  
20 lack of taste in the Cambridge by adding flavors to  
21 the filter. Would that have been feasible?  
22 A. He could have added flavors to the  
23 filters, but it wouldn't have fixed the taste, not  
24 in my opinion.  
25 Q. Dr. Whidby, I would like to turn very  
-J. Whidby, Ph.D. - direct - Mr. Rosenberg- 3026

1 briefly to nonconventional cigarettes. What are  
2 nonconventional cigarettes?

3 A. Nonconventional cigarettes are  
4 cigarettes that don't burn tobacco, that generate  
5 smoke and nicotine from that tobacco, but they use  
6 an external heat source to generate smoke from the  
7 tobacco.

8 Q. Has Philip Morris developed a  
9 nonconventional cigarette?

10 A. Yes, we have.

11 Q. Were you personally involved in those  
12 efforts?

13 A. Yes, I was.

14 Q. And I want to you assume that  
15 Dr. Townsend yesterday showed the jury the Premiere  
16 and Eclipse cigarettes. Does Philip Morris have a  
17 product that's similar to the Premiere and Eclipse  
18 cigarettes?

19 A. Not that's on the market.

20 Q. Does it have a product that is being  
21 test marketed?

22 A. Yes.

23 Q. And what is that product?

24 A. It's called the Accord.

25 Q. And let me, if I may, I guess mark  
-J. Whidby, Ph.D. - direct - Mr. Rosenberg- 3027  
1 this for -- as an exhibit. We can mark it at the  
2 break?

3 THE COURT: Sure.

4 Q. I'm showing you two items, and if you  
5 would describe them for the jury, and with your  
6 Honor's permission can Dr. Whidby just stand up a  
7 little closer so the jury can take a look at it?

8 THE COURT: Well, let me see you at  
9 side-bar.

10 (There is a side-bar conference  
11 outside the hearing of the jury.)

12 MR. ROSENBERG: These are cigarettes.

13 THE COURT: Hold them down so the  
14 jury is not watching.

15 MR. ROSENBERG: You have to place  
16 them in here and this heats the cigarette. It  
17 doesn't -- there is no lighting of the cigarettes.  
18 It heats it. It creates tobacco smoke and the  
19 person inhales it by holding this.

20 THE COURT: It's a miniature bomb, is  
21 that what you're telling me?

22 (The following takes place in open  
23 court.)

24 Q. Dr. Whidby, I'm showing you these two  
25 items, and if you would explain them to the jury,  
-J. Whidby, Ph.D. - direct - Mr. Rosenberg- 3028  
1 and you can if you need take out what's in that  
2 package, but of course, you're not going to cause --  
3 you're not going to actually use the machine here  
4 but just show the jury how it would be used.

5 A. I don't think it's in a usable state  
6 because the battery is discharged.

7 Q. Or the battery?

8 A. Or the battery. What this is is an  
9 electric heater, a lighter that's used to smoke  
10 these specially designed cigarettes.

11 Q. And just for the record, Dr. Whidby

12 is taking a cigarette out of a package that's marked  
13 Accord?

14 A. Right. The Accord cigarettes. And  
15 these are in test markets in Richmond, Virginia and  
16 Osaka, Japan. And what you do, you won't smoke it  
17 actually. You put it into the holder, the lighter,  
18 the cigarette lighter, and you puff on it. And when  
19 you puff on it, the electronics that's in the  
20 lighter senses that you puffed. It turns on an  
21 electric heater, generates a puff of smoke from  
22 that, and you take it in like a regular cigarette.

23 It has eight of those heaters on  
24 there, so for each puff, it generates smoke for a  
25 two second period that you can puff. So you can

-J. Whidby, Ph.D. - direct - Mr. Rosenberg- 3029  
1 have -- then you can set it down, take a puff  
2 whenever you want to. There's no side stream smoke  
3 coming off of it. There's no ashes from it. And  
4 when you're through, take out the cigarette and it's  
5 ready for another.

6 It has built into it the heater  
7 system, as I said. If I can get it to come out,  
8 eight little heaters on it.

9 Q. Just for the record, again,  
10 Dr. Whidby has taken out a piece of the heating  
11 system?

12 THE COURT: That cylindrical form,  
13 I'm familiar with the concept.

14 THE WITNESS: Okay.

15 A. Inside here is the eight heaters I've  
16 talked about. They're little specially designed  
17 heaters that get a defined amount of electric  
18 current through to generate the heat. Also, a  
19 special development of Philip Morris, going along  
20 with the battery pack that was developed -- was  
21 developed between Philip Morris and Sanyo  
22 Corporation in Japan, and there's enough power in  
23 this to smoke a full pack of cigarettes.

24 This technology we put in the  
25 marketplace in 1998 was state-of-the-art. We're

-J. Whidby, Ph.D. - direct - Mr. Rosenberg- 3030  
1 continuing to work on this, and we have new versions  
2 of this that we will get into test market this year.  
3 This is really where Philip Morris is putting a  
4 significant portion of its research and development  
5 right now, because the constituents that are in the  
6 smoke from this, the harmful constituents, are  
7 vastly reduced over cigarettes.

8 Q. In that regard, Doctor, have you  
9 prepared a demonstrative, a graphic, to show the  
10 reduction of the constituents in the smoke that's  
11 produced by the Accord?

12 A. Yes, I have.

13 Q. And if we can see demonstrative  
14 No. 62, Charles. And if you can explain that  
15 demonstrative to the jury please. With your Honor's  
16 permission, if I could have Dr. Whidby stand next to  
17 the plasma screen?

18 THE COURT: Sure.

19 A. All this is is a comparison of the  
20 smoke from the Accord cigarette with a conventional  
21 cigarette. That's how the tar delivers, about a 3  
22 milligrams tar delivery. What is shown here is some

23 of the harmful constituents, benzopyrene,  
24 benzo(a)anthracene, benzophenols and a few others,  
25 and it talks about the reduction in the Accord  
-J. Whidby, Ph.D. - direct - Mr. Rosenberg- 3031  
1 cigarette when smoked with the Accord lighter that  
2 you achieve. Examples of this range from 99 percent  
3 reduction with benzo(a)anthracene, up to 78 percent  
4 reduction with acidaldehyde.  
5 Q. Thank you, Doctor. How long did it  
6 take Philip Morris to develop this project?  
7 THE COURT: This product, the Accord,  
8 or the product with the cylinder?  
9 Q. The Accord, which is the product that  
10 we're talking about for demonstrative No. 62.  
11 A. It's a complex question. The reason  
12 it's a complex question, when I went to Philip  
13 Morris in 1972, there was knowledge that some of  
14 people had gained and we continue to gain more  
15 knowledge in this area. What we knew at the time  
16 was, if you heat tobacco and don't have the  
17 combustion products from the tobacco, but heat it  
18 and keep it below a certain temperature, the  
19 constituents that come off the tobacco can be vastly  
20 reduced, the harmful constituents can. So from  
21 certainly since 1972, that has been sort of the real  
22 fundamental area that we thought we could make the  
23 best contribution in producing a less hazardous  
24 cigarette. So we've been working on it since then.  
25 The concept of an electrically heated  
-J. Whidby, Ph.D. - direct - Mr. Rosenberg- 3032  
1 cigarette really wasn't feasible until '98, because  
2 we had to develop the heating materials, the  
3 batteries, the electronics. Contained in that is  
4 this 3D-6 computer equivalent process for power for  
5 processing, and we couldn't do that until then. We  
6 can do better now, and we're going to try to put  
7 this on the market again.  
8 Q. Was an Accord or a product  
9 substantially equivalent to Accord technically  
10 feasible or practical prior to the mid '70s?  
11 A. No.  
12 Q. One last question, Dr. Whidby. In  
13 your opinion to a reasonable degree of scientific  
14 certainty, are you aware of anything that Philip  
15 Morris could have done but did not do in connection  
16 with cigarette design prior to the mid '70s that was  
17 technically feasible, practical, and would not have  
18 impaired substantially the intended or reasonably  
19 anticipated function of its cigarettes?  
20 A. No.  
21 MR. ROSENBERG: Thank you very much,  
22 doctor.  
23 THE COURT: Folks, I'm going to take  
24 a quick ten minutes, have you stay up here, and then  
25 I'm going to bring you back and we'll start  
-J. Whidby, Ph.D. - direct - Mr. Rosenberg- 3033  
1 cross-examination.  
2 (The jury leaves the courtroom.)  
3 THE COURT: Mr. Rosenberg, I'm going  
4 to have Gina mark -- I'll have Gina give you two  
5 stickers. Mark them as your stickers for the  
6 cylinder and the packet. And I don't know if  
7 they're going to be used on cross, but we'll retain

8       them after tonight.  
9                       MR. ROSENBERG:   And I will replace  
10       the cigarette in the packet.  
11                       THE COURT:   All right.   Ten minutes  
12       everyone.  
13                       (A recess is taken.)  
14                       THE COURT:   Can you tell me what the  
15       item number of the exhibits are?  
16                       All right.   DW-2 is the cigarette  
17       packet, and the heater is DW-1.   Everybody have  
18       that?  
19                       (The jury enters the courtroom.)  
20                       THE COURT:   All right.   Thank you  
21       very much.   Please be seated.  
22                       Cross-examination.  
23                       MR. PATRICK:   Thank you, your Honor  
24  
25       CROSS-EXAMINATION BY MR. PATRICK:  
              -J. Whidby, Ph.D. - direct - Mr. Rosenberg-   3034  
1               Q.       Good afternoon.  
2                       Good afternoon, Dr. Whidby.  
3               A.       Good afternoon, sir.  
4               Q.       Let me just ask you to begin with a  
5       few questions about this last exhibit that you have,  
6       I think it's W-1 and W-2, the Accord device?  
7               A.       Yes, sir.  
8               Q.       Is this a cigarette?  
9               A.       Yes, sir, it is.  
10              Q.       And this heater that goes along, do  
11       you have to buy that every time you buy a package of  
12       those cigarettes?  
13              A.       No, you don't.   It's like a lighter,  
14       just a Bic lighter, a very sophisticated complicated  
15       Bic lighter tool.  
16              Q.       It's being test marketed right now?  
17              A.       Yes.  
18              Q.       In Richmond?  
19              A.       Yes, in Richmond in this country.  
20              Q.       And in Japan?  
21              A.       In Osaka, Japan.  
22              Q.       How do you buy the lighter or the  
23       heater and the cigarettes?   How is this marketed?  
24       Do you just go to a store and buy it?  
25              A.       You go to the store -- if you haven't  
              -J. Whidby, Ph.D. - direct - Mr. Rosenberg-   3035  
1       had one -- if you don't have an Accord, first time  
2       you buy it, you get a number of packs of cigarettes  
3       along with the lighter.   The lighter comes with a  
4       charger and a way to clean it, to clean the heater.  
5       And subsequent to that initial purchase, you can go  
6       buy cartons of the Accord cigarettes.  
7              Q.       Do you have to buy batteries for it,  
8       as well?  
9              A.       The batteries are rechargeable.  
10       There's a charger that comes along with it.   It  
11       charges it similar to a cell phone charger.  
12              Q.       Is there a warning label on the  
13       cigarettes?  
14              A.       Yes, sir, there is.  
15              Q.       Did you have to get FDA approval for  
16       these cigarettes?  
17              A.       Not to my knowledge, no, sir.  
18              Q.       Was there any concern expressed by

19 the Food and Drug Administration that this might be  
20 a nicotine delivery device?

21 A. I don't know that there was. I don't  
22 know that there wasn't. They didn't express it to  
23 me. I certainly don't think there was an expression  
24 of concern.

25 Q. That's because it's got tobacco in  
-J. Whidby, Ph.D. - direct - Mr. Rosenberg- 3036  
1 it?

2 A. I burns tobacco, yes.

3 Q. It actually burns the tobacco or does  
4 it heat the tobacco?

5 A. It heats the tobacco to a scorching  
6 point. If you can -- if you see one that's smoked,  
7 there's darkening browning of the tobacco that's on  
8 the outside of the cigarette, so you're generating  
9 smoke off of it from the cigarette.

10 Q. What has been the response by the  
11 consumer to this?

12 A. We've had a limited degree of  
13 acceptance of it. It's not a runaway success at  
14 this point. We do have people who use this  
15 exclusively. We also have people who use these, as  
16 well as cigarettes, regular cigarettes. And we do  
17 have a new and improved version, if you will, that's  
18 going to be put on the market in a test -- and in  
19 additional cities this year we hope.

20 Q. So right now it's just being test  
21 marketed in Richmond, Virginia?

22 A. And Osaka, Japan.

23 Q. And Japan?

24 A. That's right.

25 Q. And Richmond is where you're from or  
-J. Whidby, Ph.D. - direct - Mr. Rosenberg- 3037  
1 is a town nearby Richmond, right?

2 A. Yes.

3 Q. And Richmond is the home of Philip  
4 Morris?

5 A. That's where some of our  
6 manufacturing facilities are. We have manufacturing  
7 facilities in other places too.

8 Q. All right. You used to be an  
9 executive with Philip Morris, correct?

10 A. I was a scientist with Philip Morris.

11 Q. All right.

12 A. I don't think I was --

13 Q. Sir, what was your last position  
14 before you left Philip Morris?

15 A. Fellow.

16 Q. And you're now retired?

17 A. Yes, sir.

18 Q. And I believe you said on direction  
19 examination that you now have your own consulting  
20 company, correct?

21 A. One person, I consult for Philip  
22 Morris.

23 Q. Your only client then is Philip  
24 Morris?

25 A. Yes, sir.

-J. Whidby, Ph.D. - direct - Mr. Rosenberg- 3038  
1 Q. And you've testified for Philip  
2 Morris in previous tobacco cases, correct?

3 A. Two previous, yes.

4 Q. And sir, in cases sometimes you may  
5 give a deposition. You know what a deposition is,  
6 correct?  
7 A. Yes, I do.  
8 Q. And I think while you were at Philip  
9 Morris you gave depositions on behalf of Philip  
10 Morris at the request of the Department of Justice  
11 in patent litigation, correct?  
12 A. In those two cases, yes.  
13 Q. And you've testified for Philip  
14 Morris in a deposition, not a tobacco case, but a  
15 fire case that I believe is in Boston, correct?  
16 A. I gave a deposition. I didn't  
17 testify, that's correct.  
18 Q. And there is a pending fire case  
19 against Philip Morris in Texas and you've given a  
20 deposition in that case, correct?  
21 A. Yes, I have. I've given two  
22 depositions in that.  
23 Q. And you've testified in trial in a  
24 case in California, tobacco case. I think it was  
25 the Whitely case in February of last year?  
-J. Whidby, Ph.D. - direct - Mr. Rosenberg- 3039  
1 A. That's correct, yes.  
2 Q. And I believe you gave a deposition  
3 in a case that's pending in South Carolina, the  
4 LaBelle case, correct?  
5 A. Correct, yes.  
6 Q. And you gave a deposition in the  
7 Felice tobacco case, one pending that New York City?  
8 A. That's correct.  
9 Q. And I believe on Monday or sometime  
10 next week you're going to be testifying in the  
11 Empire Blue Cross/Blue Shield tobacco case in New  
12 York?  
13 A. That's on my schedule, yes, it is.  
14 Q. Are there any other tobacco cases  
15 that you've testified in on behalf of Philip Morris?  
16 A. There may be. None comes to mind  
17 right now. I don't generally try to remember the  
18 names of cases.  
19 Q. That's fair. You have a set fee  
20 which is \$2200 a day, correct, or is it more than  
21 that?  
22 A. It's \$2200 a day when I'm working on  
23 legal issues, that is correct.  
24 Q. And that's for testimony and  
25 consultation, correct?  
-J. Whidby, Ph.D. - direct - Mr. Rosenberg- 3040  
1 A. Yes. When I'm giving testimony they  
2 pay me \$2200 a day, and any other legal work they  
3 pay me \$2200 a day.  
4 Q. In 1998 you retired from Philip  
5 Morris, correct?  
6 A. Correct.  
7 Q. And I believe you got a retirement  
8 package that is in the neighborhood of \$100,000 a  
9 year?  
10 A. I think that's right, yes.  
11 Q. And for testifying in consultation,  
12 which I believe you said on direct is one or two  
13 days a week in the course of a year?  
14 A. On the order of a day, day-and-a-half

15 a week, yes.  
16 Q. And since you've set up your  
17 consulting company that's been about a hundred  
18 thousand dollars a year for you from that  
19 consultation?  
20 A. A bit less than that, I think, but  
21 not much. I won't argue or quibble over that.  
22 Q. You began at Philip Morris in 1972,  
23 correct?  
24 A. Correct.  
25 Q. You retired in 1998?  
-J. Whidby, Ph.D. - direct - Mr. Rosenberg- 3041  
1 A. That's correct.  
2 Q. Can we have a picture please?  
3 THE COURT: Does it have a number?  
4 MR. PATRICK: It's DW-3, your Honor.  
5 MR. ROSENBERG: We have no idea what  
6 document he's going to publish.  
7 MR. PATRICK: It's not a surprise.  
8 MR. ROSENBERG: It certainly is.  
9 THE COURT: Would you like --  
10 MR. PATRICK: Let me ask this  
11 question, Dr. Whidby. If you saw a picture of  
12 William Farone, Dr. William Farone, would you  
13 recognize him.  
14 A. I believe so.  
15 Q. And when did you first meet  
16 Dr. Farone?  
17 A. I probably met him within weeks or a  
18 month or so after he first came to Philip Morris.  
19 Q. And I believe -- well, let me ask you  
20 this. Have you read Dr. Farone's testimony that he  
21 gave in this case?  
22 A. No, sir, I have not.  
23 Q. And I believe you testified that  
24 Dr. Farone -- you worked for Dr. Farone in Philip  
25 Morris?  
-J. Whidby, Ph.D. - direct - Mr. Rosenberg- 3042  
1 A. Yes, sir, I did.  
2 Q. And what was his position when you  
3 worked for him?  
4 A. Well, when I was working for him, he  
5 was a Director of Applied Research. He was a  
6 director.  
7 Q. And I believe you would have -- I  
8 think you testified this morning, you would have  
9 coffee together, you would have discussions with  
10 him, that you would even have social interaction?  
11 A. We did have some social interaction,  
12 yes.  
13 Q. Would you consider him a personal  
14 friend while you were at Philip Morris?  
15 A. Yes, I would.  
16 Q. Were there times when you would go  
17 over to his house or he would come over to your  
18 houses?  
19 A. There were times yes.  
20 Q. Would you have dinner together?  
21 A. Yes, we would.  
22 Q. And I believe you testified that  
23 Dr. Farone was terminated or left Philip Morris in  
24 1984; is that correct?  
25 A. That's right. He was fired in 1984.



-J. Whidby, Ph.D. - direct - Mr. Rosenberg- 3043

1 Q. Now, prior to his leaving Philip  
2 Morris, Dr. Farone had an arrangement with Philip  
3 Morris that he could appoint his -- or make a  
4 recommendation on his successor; is that correct?

5 A. That's correct.

6 Q. And he recommended to management that  
7 you be his successor, correct?

8 A. I don't know that to be the case. I  
9 won't argue with it.

10 Q. Did he ever tell you that?

11 A. No, sir, he didn't.

12 Q. Did other people tell you that at  
13 Philip Morris?

14 A. I had heard that.

15 Q. That you were recommended by  
16 Dr. Farone to be his successor?

17 A. I had heard that, yes.

18 Q. But you weren't selected, were you?

19 A. No, I was not, not immediately on his  
20 leaving.

21 Q. Was the reason given that you weren't  
22 selected at that time that you had not established  
23 at that point in time your loyalty to Philip Morris?

24 A. I was never given a reason.

25 Q. Never given a reason?

-J. Whidby, Ph.D. - direct - Mr. Rosenberg- 3044

1 A. No.

2 Q. Do you know who Max Hauserman is?

3 A. Yes, I do.

4 Q. And who is Max Hauserman?

5 A. Max Hauserman was the Vice President  
6 of Research and Development.

7 Q. Do you know who Dr. Frank Resnik is  
8 or was?

9 A. Yes, I do.

10 Q. And who was Dr. Resnik?

11 A. Mr. Resnik was a senior executive at  
12 Philip Morris.

13 Q. Was Mr. Resnik involved in  
14 determining whether or not you would take the  
15 position that was vacated by Dr. Farone?

16 A. Not to my knowledge.

17 Q. Was Dr. Hauserman involved in that  
18 process?

19 A. He may have been. I don't know. I  
20 assume Dr. Hauserman was.

21 Q. Did you know a Jim Charles while you  
22 were at Philip Morris?

23 A. Yes, I did.

24 Q. And I believe you reported at one  
25 time to Dr. Charles, did you not?

-J. Whidby, Ph.D. - direct - Mr. Rosenberg- 3045

1 A. That is true, yes.

2 Q. Did doctor -- for how long a period  
3 of time did you report to Dr. Charles?

4 A. Several years, three or four years.  
5 I don't recall exactly. I think three or four or  
6 five years, something in that nature.

7 Q. Did you have discussions with  
8 Dr. Charles?

9 A. Yes. I've had many discussions with  
10 Dr. Charles.

11 Q. How about Tom Osdene, did you have  
12 any discussions with him?  
13 A. Yes, I did.  
14 Q. And what was Dr. Osdene's position?  
15 A. Dr. Osdene's position was director.  
16 Q. In the course of preparing for your  
17 testimony either in this case or other tobacco  
18 litigation, have you reviewed internal tobacco  
19 documents?  
20 A. I have reviewed documents over the  
21 period of time, yes.  
22 THE COURT: Charles, can you just  
23 elevate the doctor's microphone, because I'm having  
24 a little trouble hearing him.  
25 MR. ROSENBERG: Before it's published  
-J. Whidby, Ph.D. - direct - Mr. Rosenberg- 3046  
1 to the jury, may we a second to look at this  
2 document?  
3 THE COURT: Sure. Can you give me the  
4 item number.  
5 MR. PATRICK: Number is 15200.  
6 THE COURT: Thank you.  
7 MR. ROSENBERG: We have an objection  
8 to this document, your Honor.  
9 THE COURT: May I see counsel at  
10 side-bar with the reporter please.  
11 (There is a side-bar conference  
12 outside the hearing of the jury.)  
13 THE COURT: Okay. This is my 30  
14 second skim through this document which is the  
15 February 23, 1982 memo to Dr. T.S. Osdene from  
16 J.L. Charles.  
17 MR. ROSENBERG: I'll begin with the  
18 date. As I think should be apparent, I did a very  
19 narrow direct of this witness. I did the  
20 technological feasibility, and whether what was  
21 post-'74 was technically feasible prior to '74.  
22 This document contains -- first of all, it's  
23 February 22, 1982, which is eight years after the  
24 period we were dealing with, seven to eight years.  
25 It has a lot of statements in here by one J.R.  
-J. Whidby, Ph.D. - direct - Mr. Rosenberg- 3047  
1 Charles, that's not this witness, which would be  
2 highly prejudicial. It talks about -- I mean just  
3 looking at this for the first time today, "The  
4 company's in trouble. The cigarette industry is in  
5 trouble." And of course this is 1982 which is right  
6 after the years that we're concerned about. It has  
7 statements against the anti-smoking forces. It  
8 criticizes the Surgeon General. I don't see what  
9 the possible relevance of this document is in this  
10 cross-examination.  
11 THE COURT: I don't know.  
12 MR. PATRICK: Well, your Honor, it's  
13 a matter of impeachment. This man has testified  
14 that he joined the company in 1972 to make a safer  
15 cigarette. Ten years later one of the -- one of his  
16 supervisors is writing to Dr. Osdene and saying,  
17 "Listen, we've got these biological bad things in  
18 cigarette smoke, and we need to do something about  
19 it."  
20 Now, if they were really doing  
21 something about it, like taking them out or

22 selectively reducing them, why in 1982 was this  
23 letter being written that there are nitrosamines in  
24 cigarette smoke, there's nicotine in cigarette  
25 smoke, there's cyanide in cigarette smoke? And the  
-J. Whidby, Ph.D. - direct - Mr. Rosenberg- 3048  
1 doctor, Dr. Charles, was urging Dr. Osdene to face  
2 the facts.

3 I think this is contrary to the  
4 position he stated that there was actually something  
5 being done with regard to a reduction of these  
6 compounds in cigarette smoke. This letter is  
7 evidence to the contrary to his testimony.

8 THE COURT: May I ask a question  
9 before you respond?

10 MR. ROSENBERG: Sure.

11 THE COURT: This may be somewhat  
12 similar to the question Mr. Biersteker asked  
13 yesterday. Testimony by witnesses yesterday for  
14 R.J.R. talked about products and actions that were  
15 taken post-1974. I asked -- I think Don was up here  
16 yesterday. Mr. Migliori was here for the  
17 plaintiffs.

18 MR. PATRICK: Right.

19 THE COURT: And he had a running  
20 objection as to -- not running objection. He  
21 objected several times as to what the relevancy of  
22 the testimony was post-1974. Mr. Biersteker told  
23 me, in response to my question, because I was trying  
24 to figure out the context of where this was going,  
25 to avoid additional objections, whether or not this

-J. Whidby, Ph.D. - direct - Mr. Rosenberg- 3049  
1 in fact was going to be used by -- to have the jury  
2 use by way of inference whether this related back to  
3 the pre-1974 period on the product development. He  
4 said yes.

5 Now, I'm just asking the question  
6 with that predicate. Do I take it -- you tell me.  
7 Do I take it to understand that the reason you are  
8 giving a post-1974 document is with respect to a  
9 rebutting of any inference having been put forth of  
10 items such as the one -- what is the name of this  
11 product?

12 MR. ROSENBERG: The Accord.

13 THE COURT: Which is the pre-'74  
14 document to rebut the same inference, for instance?

15 MR. PATRICK: To rebut the same  
16 inference, that it could have been done earlier, and  
17 in fact, what they are saying, they tried and they  
18 tried and they tried in the '70s, '80s and '90s, and  
19 they finally got this Accord cigarette, and this is  
20 proof. At least there's an inference to be drawn  
21 that they didn't even try in the '70s. They didn't  
22 try in the '80s, and that their program was  
23 efficient in trying to develop a cigarette that  
24 could have been developed prior to 1972.

25 THE COURT: Let me ask one more

-J. Whidby, Ph.D. - direct - Mr. Rosenberg- 3050  
1 question. This document, Mr. Rosenberg, this is the  
2 first time you've seen it?

3 MR. ROSENBERG: No. I've seen this  
4 document before -- I didn't want to --

5 THE COURT: Then I don't have that  
6 question, okay.

7 I'm sorry. You wanted to respond?  
8 MR. ROSENBERG: Yeah. First of all,  
9 in terms of impeachment, Dr. Whidby's testimony is  
10 that they were unsuccessful in effectively reducing  
11 nitrosamines, they were able to do a certain but not  
12 anything else. I don't understand how this document  
13 in any way impeaches that. And if he's going to  
14 rely on a specific portion of it, let's focus on  
15 that and see how it goes to that issue.

16 MR. PATRICK: Well, I stated, I mean,  
17 it's -- he identifies the carcinogens in cigarette  
18 smoke.

19 THE COURT: Counsel is reading at the  
20 bottom of page 4 which starts cigarette smoking is  
21 biologically active. And then there's an  
22 enumeration A, B, C.

23 MR. PATRICK: Nicotine, talks about  
24 tumors on the backs of mice, hydrogen cyanide,  
25 acrolein, polonium 210. The inference to be drawn  
-J. Whidby, Ph.D. - direct - Mr. Rosenberg- 3051  
1 is this is one of the first times that this company  
2 recognized that these constituents were present in  
3 the tobacco smoke and now is the time to do  
4 something about it. And this is direct impeachment  
5 material for this individual who says he started in  
6 '72 to do the same thing, and I just want to test  
7 his memory, and test his opinion, as to when this  
8 was first done.

9 THE COURT: Let me ask this: Before  
10 you go to impeach him, you have not asked him the  
11 predicate questions yet. You were ready to jump  
12 right into the document. That's one of the problems  
13 I have with it. I think you have to lay predicate  
14 first, depending on -- and you can do it item by  
15 item.

16 My thought is before you jump to the  
17 document, rather than jump, go back, jump, go back,  
18 lay out the predicate questions first, and then go  
19 to the document. You can do it the way you want,  
20 but the document at this point cannot be used for  
21 impeachment because there's no testimony to be  
22 impeached, because the testimony earlier today was  
23 very general in the sense of time period, were there  
24 animal tests done and were there other things, was  
25 this technically feasible, was this done. He's

-J. Whidby, Ph.D. - direct - Mr. Rosenberg- 3052  
1 asking about specific elements. I don't know if  
2 you've got enough to say yet in a global way. We  
3 need you to break it down. Let's hear it question  
4 by question.

5 MR. ROSENBERG: If in fact he goes to  
6 this document, though, he's only going to refer to  
7 the stuff on pages 4 and the bottom of page 4 and 5.

8 MR. PATRICK: This first paragraph  
9 also has comments concerning future strategies.

10 THE COURT: Which Surgeon General's  
11 report is this referring to?

12 MR. PATRICK: '82.

13 THE COURT: Did you talk about the  
14 '82 report.

15 MR. ROSENBERG: Absolutely not, ever.  
16 Every question I had was up to the '70s, and I only  
17 used a few past the '70s to say it was

18 technologically feasible prior to the '70s. Simply  
19 because there's an allusion to the Surgeon  
20 General's report doesn't mean that it's --  
21 THE COURT: Of course, the Surgeon  
22 General's report is relevant. If you're going to  
23 impeach him on a specific issue, then it has to come  
24 from something that he has said before he can be  
25 impeached. Counsel for the defense has not brought  
-J. Whidby, Ph.D. - direct - Mr. Rosenberg- 3053  
1 up the Surgeon General's report. Again, you don't  
2 have the statement upon which you can impeach him.  
3 MR. PATRICK: Right, but he certainly  
4 brought up hydrogen cyanide, which was on the graph,  
5 tobacco specific nitrosamines.  
6 THE COURT: Maybe you don't  
7 understand. I'll let you go for the enumerations.  
8 I'm telling you you can't just jump in and slap the  
9 document down, isn't it the true that you didn't  
10 tell the truth about the Surgeon General's report,  
11 because there's nothing on it yet.  
12 (The following takes place in open  
13 court.)  
14 Q. Dr. Whidby, let me ask you this.  
15 Prior to 1982, were you aware as a scientist for  
16 Philip Morris that hydrogen cyanide was present in  
17 cigarette smoke?  
18 A. Yes, I was.  
19 Q. Were you aware prior to 1982 that  
20 tobacco specific nitrosamines were present in  
21 cigarette smoke?  
22 A. Yes. I believe I was.  
23 Q. Prior to 1982 would you agree that  
24 nitrosamines as a class are potent carcinogens?  
25 A. Yes. I believe I would have.  
-J. Whidby, Ph.D. - direct - Mr. Rosenberg- 3054  
1 Q. Would you agree prior to 1982 that  
2 acrolein -- am I saying that correctly, acrolein?  
3 A. I say acrolein.  
4 Q. Would you agree that acrolein is very  
5 toxic or was very toxic to cells prior to 1982?  
6 A. From my reading of the literature --  
7 pardon me, I'm sorry. I believe all these things  
8 are. I'm not a toxicologist, but from my reading of  
9 the literature, I believe they are, yes.  
10 Q. As a scientist -- and you've talked  
11 about selective and general reduction -- were those  
12 some of the items that you as a scientist and Philip  
13 Morris were trying to reduce the presence of in  
14 cigarette smoke?  
15 A. All of those would be desirable to  
16 reduce, yes.  
17 Q. Were you aware prior to 1982 that  
18 polonium 210 was present in cigarette smoke?  
19 A. Polonium 210 is another issue. I  
20 knew there was an issue with polonium 210, and the  
21 issue -- the reduction of polonium 200 was the thing  
22 to do. The presence of it was there, yes. I was  
23 aware of it.  
24 Q. Before 1982, did you and Philip  
25 Morris or other scientists in Philip Morris engage  
-J. Whidby, Ph.D. - direct - Mr. Rosenberg- 3055  
1 in a qualitative analysis of tar-produced by  
2 cigarettes?

3 A. We were analyzing tar prior to '82,  
4 yes.  
5 Q. Prior to 1982 did you disclose the  
6 additives that were introduced into cigarettes?  
7 A. I don't recall exactly when Philip  
8 Morris disclosed the additives.  
9 Q. Did Dr. Charles ever indicate to you  
10 that as of 1982 that Philip Morris was in trouble?  
11 MR. ROSENBERG: Objection, your  
12 Honor.  
13 THE COURT: Vague and overbroad?  
14 MR. ROSENBERG: Absolutely.  
15 THE COURT: Sustained.  
16 Q. In 1982 was there a discussion of the  
17 health hazards of cigarette smoking that may have  
18 become apparent from the publication of the Surgeon  
19 General's report of that same year?  
20 MR. ROSENBERG: Objection, your  
21 Honor, beyond the scope.  
22 THE COURT: No. I'm going to allow  
23 that one.  
24 A. Would you repeat the question, I'm  
25 sorry.  
-J. Whidby, Ph.D. - direct - Mr. Rosenberg- 3056  
1 Q. In 1982, while you were at Philip  
2 Morris, do you recall any concern, discussion of  
3 health hazards that may have been raised by the  
4 United States Surgeon General in the publication of  
5 Surgeon General's report of that year?  
6 A. Specifically, I don't remember the  
7 specific discussions, but there were discussions  
8 about the Surgeon General's report. I looked at it  
9 myself, again, not being a toxicologist but being  
10 interested in reducing harmful constituents in  
11 smoke, and there was a discussion, yes.  
12 Q. Now, did Marlboro cigarettes ever  
13 have charcoal filters?  
14 A. Not to my knowledge, no.  
15 Q. You were aware of the use of charcoal  
16 filters and carbon filters, are you not?  
17 A. We do have charcoal filters on the  
18 market, Philip Morris has, yes.  
19 Q. And I believe in one of the reliance  
20 materials that counsel gave us prior to your  
21 testimony today was a monograph. This is Philip  
22 Morris PM L2907. This is Monograph No. 7. Have you  
23 reviewed this?  
24 A. Yes, I have. I have looked at it  
25 over the years.  
-J. Whidby, Ph.D. - direct - Mr. Rosenberg- 3057  
1 Q. And are you familiar with the chapter  
2 by Dietrich Hoffman concerning changes in cigarette  
3 design?  
4 A. I've read that, yes.  
5 Q. Page 15. This is page 15, the first  
6 page. Can you go to the next slide, please. All  
7 right.  
8 Are you familiar with this particular  
9 paragraph by Dr. Hoffman where he says that, "More  
10 than 70 percent of all cigarettes sold in Japan have  
11 charcoal containing filter tips. Only a few percent  
12 of the cigarettes sold in the United States have  
13 such filters. Although more Japanese men smoke

14 comparable numbers of cigarettes per day than  
15 American men do, and the smoke yields per cigarette  
16 in Japan are similar to those in the United States,  
17 Japanese men have a significantly lower lung cancer  
18 incidence rate. Among other factors, the lower  
19 yields of cilia toxins such as acrolein and hydrogen  
20 cyanide in the smoke of cigarettes with charcoal  
21 filter tips are believed partly responsible for the  
22 lower lung cancer rate in Japan."

23 Now, Dr. Whidby, my question is  
24 you're aware that acrolein was present in Marlboro  
25 cigarette smoke, correct.

-J. Whidby, Ph.D. - direct - Mr. Rosenberg- 3058

1 A. Yes, sir, I am.

2 Q. And hydrogen cyanide was present in  
3 Marlboro cigarette smoke?

4 A. Yes, sir, I am.

5 Q. And that the use of a charcoal filter  
6 or carbon filter would have reduced the presence of  
7 those two substances or constituents had one been  
8 placed on a Marlboro cigarette?

9 A. Those could be reduced to some extent  
10 with a charcoal filter, yes.

11 Q. And according to Dr. Hoffman, the  
12 rate of lung cancer would have gone down, correct?

13 A. It says what it says.

14 Q. Now, Marlboros never had a charcoal  
15 filter, did they at any time?

16 A. Not that I'm aware of, no.

17 Q. Now, in 1972, I believe you said you  
18 came to Philip Morris to develop a safer cigarette;  
19 is that correct?

20 A. That is correct, yes.

21 Q. Now, if Philip Morris recognized that  
22 a cigarette, a safer cigarette needed to be  
23 developed in 1972, there was an implication that the  
24 cigarettes that sold prior to 1972 were not as safe,  
25 correct?

-J. Whidby, Ph.D. - direct - Mr. Rosenberg- 3059

1 A. We were always striving to make them  
2 better, yes.

3 Q. But the public position of Philip  
4 Morris as of 1972 was that Philip Morris cigarettes,  
5 none of the cigarettes had been proven to be unsafe,  
6 correct?

7 MR. ROSENBERG: Objection, your  
8 Honor.

9 THE COURT: Phrasing the question?

10 MR. ROSENBERG: And beyond the scope.

11 THE COURT: No. I'll go for phrasing  
12 of the question. Can you rephrase that?

13 Q. Isn't it true, Dr. Whidby, that the  
14 public position of Philip Morris prior to 1972, the  
15 date of your joining the company, was that its  
16 cigarettes had not been proved to be unsafe?

17 A. I won't argue with that. I won't  
18 argue with that.

19 Q. Okay. Dr. Whidby, are you aware  
20 whether or not in 1973 Philip Morris had actually  
21 produced safer cigarettes but had not marketed those  
22 cigarettes?

23 A. I've never been aware of any point in  
24 time when Philip Morris had cigarettes that were

25 safer that could be commercially produced and were  
-J. Whidby, Ph.D. - direct - Mr. Rosenberg- 3060  
1 commercially acceptable that we could market that we  
2 didn't do that.

3 Q. Are you familiar with Dr. Helmut  
4 Wacom?

5 A. Yes, I am.

6 Q. Who is Dr. Wacom?

7 A. Dr. Wacom was the vice president of  
8 research and development when I went there in 1972.

9 Q. And are you aware that Philip Morris  
10 maintained a research laboratory in Europe?

11 A. I am aware.

12 Q. Would it be correct that at that  
13 research laboratory that there was research on  
14 designs of cigarettes that could -- that were safer  
15 than the conventional cigarettes produced by Philip  
16 Morris?

17 A. To my knowledge that's not what was  
18 done at MBFO.

19 Q. MBFO is an acronym for this  
20 laboratory in Europe, correct?

21 A. Yes.

22 Q. So is it your testimony that at the  
23 research facilities in Richmond, Philip Morris  
24 scientists had not been able to produce a safer  
25 cigarette by 1973?

-J. Whidby, Ph.D. - direct - Mr. Rosenberg- 3061

1 A. Cigarettes in 1973 in my belief were  
2 safer than they were earlier than that.

3 Q. I would like to show you what is  
4 already in evidence, Plaintiff's Exhibit 1378.

5 MR. ROSENBERG: May we see it before  
6 it's published?

7 MR. PATRICK: It's in evidence, but  
8 I'll be happy to show it to you.

9 MR. ROSENBERG: That's fine, your  
10 Honor.

11 THE COURT: Publish.

12 Q. At the top, please, and you've  
13 already said you recognize or know who Helmut Wacom  
14 is?

15 A. Yes, sir.

16 Q. This is a presentation to the board  
17 and I apologize, the date is blurred, but it's  
18 October 15, 1973. He says, "Gentlemen -- and this  
19 is to the board of Philip Morris -- I've been given  
20 five minutes to describe a five year plan for  
21 research and development, so I must limit myself to  
22 about one minute per year. This I will do briefly  
23 stating an underlying approach to our  
24 responsibilities, and then citing two specific areas  
25 which I believe will be of importance to the long

-J. Whidby, Ph.D. - direct - Mr. Rosenberg- 3062  
1 range well-being of our company." End of page  
2 please.

3 "The second trend is the intensifying  
4 pressure to develop a safe cigarette. The European  
5 tobacco industry has agreed that smoking is harmful  
6 and is hard at work to develop a less hazardous --  
7 to develop less hazardous products, developments" --  
8 go back to the first page. "Developments and  
9 marketing such cigarettes by European -- marketing



10 of such cigarettes by European firms will get great  
11 pressure on Philip Morris International to do  
12 likewise. Once the international market has a less  
13 hazardous cigarette, our American counterpart will  
14 be able to do no less, and it's probably only a  
15 matter of timing, since the Tobacco Program at  
16 National Cancer Institute is also aimed at the  
17 development of cigarette prototypes which they will  
18 define as less hazardous."

19 THE COURT: Wait, wait. Slow down.  
20 This woman is typing this.

21 MR. PATRICK: I'm sorry.

22 Q. "The definition of cigarette safeness  
23 centers around a battery of bioassay tests currently  
24 with animals, but eventually, with humans. Our  
25 current program is to use a limited number of such

-J. Whidby, Ph.D. - direct - Mr. Rosenberg- 3063  
1 tests to evaluate filter combinations, blend  
2 components, and even non-tobacco substitute  
3 materials. We are working to be in a position to  
4 design a cigarette which will meet less hazardous  
5 specifications if they are ever imposed on us, and  
6 at the same time to make a product which is  
7 attractive to the smoker.

8 "I am pleased to report that we  
9 already have a number of such prototypes on our  
10 shelves with more to come in the future."

11 Now, Dr. Whidby, does Dr. Wacom not  
12 indicate to the board of Philip Morris in 1973 that  
13 there are safe cigarette prototypes sitting on the  
14 shelves of the scientific laboratories of Philip  
15 Morris as of that time?

16 MR. ROSENBERG: Objection to form.

17 THE COURT: I'm sorry. I'll have to  
18 see you at side-bar. I'm not following that  
19 objection.

20 (There is a side-bar conference  
21 outside the hearing of the jury.)

22 MR. ROSENBERG: He used the words  
23 "safe cigarettes."

24 MR. PATRICK: I'll rephrase.

25 THE COURT: It's a quarter to four

-J. Whidby, Ph.D. - direct - Mr. Rosenberg- 3064  
1 now. I'm bringing this man back on Monday, and.

2 MR. PATRICK: Your Honor I'll be done.

3 THE COURT: Okay.

4 MR. PATRICK: 30 seconds promise.

5 (The following takes place in open  
6 court.)

7 Q. Dr. Whidby, are you as a former  
8 Philip Morris scientist aware that safer cigarette  
9 prototypes had been developed by Philip Morris prior  
10 to 1973 and had not yet been marketed?

11 A. No, I'm not. I don't know of any  
12 cigarettes that sat on the shelf and not marketed.

13 Q. So Dr. Wacom is telling this to the  
14 board of directors, and you are unaware of the  
15 existence of such prototypes?

16 A. Yes, I don't know what he meant by  
17 that. Certainly don't.

18 MR. PATRICK: Thank you very much.

19

20 REDIRECT EXAMINATION BY MR. ROSENBERG:

21 Q. Just a couple of questions.  
22 Dr. Whidby, is a prototype a product  
23 that's ready to be marketed?  
24 A. No, sir.  
25 Q. What is a prototype?  
-J. Whidby, Ph.D. - redirect - Mr. Rosenberg-3065  
1 A. Prototype is an idea that somebody  
2 might have that could be the beginning -- could be  
3 the beginning of, say, an Accord. In 19 -- I'll  
4 give you a real date. In the mid '80s we had car  
5 batteries hooked up to a prototype cigarette that  
6 had one heater blade on it, that you could get one  
7 puff out of it, but at that time we had an idea that  
8 we really could potentially sometime in the future  
9 reduce the size of the car battery and reduce the  
10 size of the heater and allow us to produce  
11 something. A prototype is an idea that a scientist  
12 has. Sometimes they pan out; sometimes they don't.  
13 Q. Do charcoal filters eliminate all  
14 tar?  
15 A. No, they do not.  
16 Q. Is there any such thing as a safe  
17 cigarette?  
18 A. I have no idea what a safe cigarette  
19 is. I don't think it exists.  
20 MR. ROSENBERG: Thank you. I have no  
21 further questions.  
22 MR. PATRICK: Nothing from us.  
23 THE COURT: Thank you very much sir,  
24 you may remove your mike and you're excused.  
25 (The witness is excused.)  
-J. Whidby, Ph.D. - redirect - Mr. Rosenberg-3066  
1 THE COURT: All right. Ladies and  
2 gentlemen, this is Thursday. As I told you Friday  
3 is my motion day. We will not be meeting tomorrow.  
4 We will also not be meeting on Monday. I will not  
5 have the jury in on Monday. So we will next meet  
6 again Tuesday morning.  
7 If you would, I won't know until  
8 later on Tuesday, but if you would just check your  
9 personal schedules for Friday, I may -- underline  
10 may -- I'm not ordering it. I may have to take some  
11 time on Friday of that week. I told you we weren't  
12 trying on Friday, but I may have that. I'll know  
13 better on Tuesday. All right? So please check and  
14 just let us know on Tuesday of your availability for  
15 at least a partial day on next Friday, okay? Was  
16 that confusing? I tried not to be? In the morning.  
17 So not tomorrow, not Monday, Tuesday  
18 morning, nine o'clock, ready to go. We'll have  
19 another witness ready, and then you'll check your  
20 schedules and let us know sometime on Tuesday  
21 whether you are available potentially, possibly for  
22 Friday morning, okay?  
23 Good weekend. Get some rest. Thank  
24 you for your patience with us. Don't discuss the  
25 case. Stay out of the newspapers. Have a good one.  
-J. Whidby, Ph.D. - redirect - Mr. Rosenberg-3067  
1 (The jury is excused.)  
2 THE COURT: All right. Thank you  
3 all. Be seated. Tuesday morning we're going to  
4 reconvene. Someone is going to leave me the  
5 objections on the depositions.

6 MS. ROOSEVELT: Yes.  
7 THE COURT: Don, have you got them?  
8 MS. ROOSEVELT: I have everything in  
9 here.  
10 THE COURT: Okay. I'll take that and  
11 we'll try to get you -- do you need oral on it? Do  
12 you need to speak to me.  
13 MR. KLOK: Your Honor, that's  
14 acceptable, your Honor.  
15 MR. CLARK: With one proviso, we know  
16 what the plaintiffs are objecting, we don't know the  
17 grounds for them.  
18 THE COURT: Didn't we do this at  
19 pretrial? Didn't I say a paragraph, a line and  
20 grounds? Didn't I go over this last month? Check  
21 your pretrial rulings.  
22 MR. KLOK: I can send the paragraph  
23 to you.  
24 THE COURT: Per objection.  
25 MR. KLOK: Per objection.  
-J. Whidby, Ph.D. - redirect - Mr. Rosenberg-3068  
1 THE COURT: It will be supplemented  
2 to you, Ms. Roosevelt.  
3 I'll try to get an answer back for  
4 you sometime on Monday. What is Tuesday morning?  
5 MR. ROSENBERG: I think our next  
6 witness is Dr. Thomas.  
7 MR. BIERSTEKER: Thomas, yes.  
8 THE COURT: Estimated time?  
9 MR. BIERSTEKER: If I had to say now,  
10 your Honor, I would say we're probably looking at a  
11 two to two-and-a-half hour direct.  
12 THE COURT: So the day with that  
13 witness.  
14 MR. ROSENBERG: Yes.  
15 THE COURT: Do you have someone on  
16 backup just in case we finish early.  
17 MR. ROSENBERG: We do not, your  
18 Honor. We do have two witnesses lined up for  
19 Wednesday to go over until Thursday, right now, both  
20 of whom are medical doctors.  
21 THE COURT: Okay. Do I take it if we  
22 finish early by some happenstance on Tuesday, we may  
23 be able to do deposition readings.  
24 MR. ROSENBERG: Absolutely, your  
25 Honor. Also on Tuesday I'm definitely, absolutely  
-J. Whidby, Ph.D. - redirect - Mr. Rosenberg-3069  
1 going to get the now agreed-to exhibit list by  
2 Tuesday, yes? Both sides?  
3 MR. MIGLIORI: Absolutely.  
4 MR. ROSENBERG: Scout's honor.  
5 THE COURT: I also remind counsels  
6 that your motions are due tomorrow. Don't forget  
7 your disks. Defense on midday tomorrow and  
8 plaintiff's by the end of day, which in my calendar  
9 is no later than three on Monday, correct? Anybody  
10 need any more oral argument on that?  
11 MR. ROSENBERG: That was going to be  
12 my question, whether your Honor wanted oral argument  
13 on that, and I guess I know the answer.  
14 THE COURT: I don't know. If you  
15 want it, you're welcome to it. It's up to you. I'm  
16 not soliciting argument. It's really up to you.

17 MR. BIERSTEKER: I think the best way  
18 your Honor, why don't you review the papers, and if  
19 there's something that you would like us to address,  
20 we'll address it, otherwise, we'd be willing to do  
21 it on the papers.

22 THE COURT: That would be fair to me.  
23 If there's something I need to hear more of, I'll  
24 let you know in the middle of the week. I'll have  
25 Gina collect the items today, and they will be

-J. Whidby, Ph.D. - redirect - Mr. Rosenberg-3070  
1 locked up, as will the notebooks. Anything else?  
2 Because I do have a lot of motions on tomorrow, so I  
3 assume I will not be hearing -- not that it's not  
4 always a pleasure -- on this case tomorrow.

5 MR. ROSENBERG: We're hoping not to  
6 bother your Honor tomorrow.

7 THE COURT: I didn't put it that way.  
8 Everyone have a very good weekend.

9 (The trial is adjourned 3:47 P.M.)  
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